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ASSESSMENT OF A THERAPIST'S STRATEGIC PROCESSING OF PSYCHOTHERAPY: A MULTIVARIATE SINGLE CASE PROCEDURE FOR SUPERVISION.

MARCIA NADINE. GRAGG

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ASSESSMENT OF A THERAPIST'S STRATEGIC PROCESSING
OF PSYCHOTHERAPY: A MULTIVARIATE SINGLE CASE PROCEDURE
FOR SUPERVISION

© Marcia Nadine Gray

B. A. University of Ottawa 1974

M. A. University of Windsor 1993

A Dissertation
Submitted to the Faculty of Graduate Studies
through the Department of Psychology
in Partial Fulfillment of the
Requirements for the Degree
of Doctor of Philosophy at the
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1996

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35104

ABSTRACT

A review of the literature examined the prevailing approach to supervision research and provided a conceptual framework for an alternative approach. The present study used a hypothesis-generating approach with a single case design and an emphasis on process rather than outcome. The patterns of change in the student therapists' perceptions of psychotherapy and supervision were systematically evaluated and described. The subjects were six clinical psychology graduate students with some prior psychotherapy experience. There were three females and three males ranging in age from mid-twenties to early thirties. The research was conducted in conjunction with a course on systemic approaches to psychotherapy. The supervisor had extensive supervisory experience. Supervision was conducted in a group format with three student therapists in each group. A single case design was employed which considered each subject as a separate unit for purposes of data gathering, analysis and interpretation. Student perceptions were assessed by a multidimensional procedure known as the Personal Questionnaire (PQ) technique (Shapiro, 1961a). Each subject rated the perceptions (PQ items) before and after every therapy and supervision session (occasions) for the duration of

therapy. Four of the six subjects produced interpretable PQ ratings. Data from the two remaining subjects were either insufficient or unreliable. The PQ data for each subject were analysed in terms of both items and occasions by a principal component analysis (PCA). The PQ components generated by the PCA for each subject were appreciated as cognitive perspectives employed by the subjects in regard to their therapeutic performance. Although the pattern of the subjects' perspectives over time were unique for each subject, they appeared systematic and linked with ongoing events in psychotherapy and supervision. Additional components emerged which represented unique dimensions of meaning specific to each subject. A process summary (i.e., over time) for each subject represented an attempt to integrate the perspectives with specific events which occurred both in therapy and supervision. The results were discussed in terms of the practical utility of the PQ technique to define and evaluate goals in supervised psychotherapy. Theoretical implications for conceptualizing the process which student therapists undergo in learning to do psychotherapy were also discussed.

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Finally, my encomiastic although somewhat incoherent thanks for last minute, above and beyond the call of duty, absolutely crucial contributions go to Ray, Mike, Mary Anne, Mark, Jack Aharonian, Trish, and the Colio elf.

Justification will always be a device for avoiding the perception of pattern.

Bateson, 1978, p. 40

TABLE OF CONTENTS

ABSTRACT	ii
ACKNOWLEDGEMENTS	iv

<u>Chapter</u>	<u>Page</u>
I INTRODUCTION	1
Supervision Research	2
Hypothesis confirming designs	2
Emphasis on outcome	3
Group designs	5
An Alternative Approach to Supervision Research	6
Hypothesis generating designs	7
Emphasis on process	9
Single case design	12
The Present Study	15
Research questions	16
II METHOD	17
Subjects	17
Design	17
Setting	19
The Therapy Course	19
The Supervisor	22
The Supervision	23
Instrument	24
Construction of the PQ	25
Eliciting items	26
Drafting reference statements for items	26
Calibration	28
Final form of the PQ	29
Administration	29
Scoring	30
Reliability and Validity	31
Procedure	32
Data Analysis	33
Methods of Data Analysis	34
PQ items	35
Occasions	36

III RESULTS	38
Therapist Don	39
Description of Don's Evaluation of Therapy	
Skills	41
Principal Components Analysis	45
Global evaluation--unrotated Component 1	45
Specific commentary--rotated components	49
Process	54
Therapist Eva	62
Description of Eva's Evaluation of Therapy	
Skills	63
Principal Components Analysis	66
Global evaluation--unrotated Component 1	66
Specific commentary--rotated components	70
Process	75
Therapist Fay	82
Description of Fay's Evaluation of Therapy	
Skills	83
Principal Components Analysis	86
Global evaluation--unrotated Component 1	86
Specific commentary--rotated components	89
Process	93
Therapist Bob	101
Description of Bob's Evaluation of Therapy	
Skills	102
Principal Components Analysis	105
Global evaluation--unrotated Component 1	105
Specific commentary--rotated components	108
Process	112
Global Evaluation of Therapy--Don, Eva, Fay	
and Bob	118
Therapist Cal	123
Description of Cal's Evaluation of Therapy	
Skills	126
Principal Components Analysis	129
Summary	132
Therapist Amy	134
IV DISCUSSION	135
Research Questions	135
Complications	139
Theoretical Implications	142
Practical Implications	146
Suggestions for Further Research	148

<u>Appendix</u>	<u>page</u>
A. QUESTIONS BASED ON HIERARCHICAL SCHEMA	150
B. PILOT STUDY OF INTERVIEW SKILLS	157
C. CONSTRUCTION OF THE PQ	168
D. THERAPIST DON--ADDITIONAL DATA	179
E. THERAPIST EVA--ADDITIONAL DATA	186
F. THERAPIST FAY--ADDITIONAL DATA	193
G. THERAPIST BOB--ADDITIONAL DATA	200
H. THERAPIST CAL--ADDITIONAL DATA	208
I. THERAPIST AMY--ADDITIONAL DATA	218
REFERENCES	220
VITA AUCTORIS	228

LIST OF TABLES

<u>Table</u>	<u>page</u>
1. Hierarchical Schema Relating Systems Theory to Psychotherapy	20
2. PQ Items Elicited from the Supervisor	27
3. Reference Statements for Category Item 1	28
4. Don: Loadings on Unrotated Component 1	46
5. Don: Item Loadings on Rotated Component 1	50
6. Don: Item Loadings on Rotated Component 2	51
7. Don: Item Loadings on Rotated Component 3	52
8. Don: Item Loadings on Rotated Component 4	53
9. Don: Item Loadings on Rotated Component 5	53
10. Don: Process of Psychotherapy and Supervision	57
11. Eva: Loadings on Unrotated Component 1	67
12. Eva: Loadings on Rotated Component 1	71
13. Eva: Loadings on Rotated Component 2	72
14. Eva: Loadings on Rotated Component 3	72
15. Eva: Loadings on Rotated Component 4	74
16. Eva: Loadings on Rotated Component 5	74
17. Eva: Process of Psychotherapy and Supervision	76
18. Fay: Loadings on Unrotated Component 1	88
19. Fay: Loadings on Rotated Component 1	90
20. Fay: Loadings on Rotated Component 2	91
21. Fay: Loadings on Rotated Component 3	91

22.	Fay: Loadings on Rotated Component 4	92
23.	Fay: Loadings on Rotated Component 5	93
24.	Fay: Process of Psychotherapy and Supervision	95
25.	Bob: Loadings on Unrotated Component 1	106
26.	Bob: Loadings on Rotated Component 1	109
27.	Bob: Loadings on Rotated Component 2	110
28.	Bob: Loadings on Rotated Component 3	111
29.	Bob: Loadings on Rotated Component 4	112
30.	Bob: Loadings on Rotated Component 5	112
31.	Bob: Process of Psychotherapy and Supervision	114
32.	Comparison of Global Evaluation for Don, Eva, Fay and Bob	119
33.	Cal: Loadings on Unrotated Component 1	131
34.	Items for Interview PQ	160
35.	Rating Scale Used in Calibration	160
36.	Subjects' Calibration Ratings	161
37.	Raw and Mean Interview PQ Scores for Fay	163
38.	Mean Occasion Scores for all Subjects on the Interview PQ	164
39.	PQ Items Elicited from the Supervisor	170
40.	General Themes for Generating Personal Items	171
41.	Rating Scale Used in Calibration	173
42.	Eight Combinations for Counterbalanced Order of Paired Comparisons	175
43.	PQ Response Patterns and Corresponding Scores	176
44.	Don: Calibration Scores	180
45.	Don: Personal PQ Items	181
46.	Don: Occasions of PQ Administration	181

47.	Don: Raw PQ Scores	182
48.	Don: Inconsistent Response Patterns	183
49.	Don: Items Ranked By Variance	184
50.	Don: Occasions Ranked by Variance	185
51.	Eva: Calibration Scores	187
52.	Eva: Personal PQ Items	188
53.	Eva: Occasions of PQ Administration	188
54.	Eva: Raw PQ Scores	189
55.	Eva: Inconsistent Response Patterns	190
56.	Eva: Items Ranked By Variance	191
57.	Eva: Occasions Ranked by Variance	192
58.	Fay: Calibration Scores	194
59.	Fay: Personal PQ Items	195
60.	Fay: Occasions of PQ Administration	195
61.	Fay: Raw PQ Scores	196
62.	Fay: Inconsistent Response Patterns	197
63.	Fay: Items Ranked By Variance	198
64.	Fay: Occasions Ranked by Variance	199
65.	Fob: Calibration Scores	202
66.	Fob: Personal PQ Items	203
67.	Fob: Occasions of PQ Administration	203
68.	Fob: Raw PQ Scores	204
69.	Fob: Inconsistent Response Patterns	205
70.	Fob: Items Ranked By Variance	206
71.	Fob: Occasions Ranked by Variance	207
72.	Cal: Calibration Scores	209
73.	Cal: Personal PQ Items	210

74.	Cal: Occasions of PQ Administration	210
75.	Cal: Raw PQ Scores	211
76.	Cal: Patterns of Inconsistent Responses	213
77.	Cal: Calculation of Consistency of Responding . .	215
78.	Cal: Items Ranked by Variance	216
79.	Cal: Occasions of PQ Administration Ranked by Variance	217
80.	Amy: Calibration Scores	219

LIST OF FIGURES

<u>Figure</u>	<u>page</u>
1. Don: Mean PQ Scores over Occasions	42
2. Eva: Mean PQ Scores over Occasions	64
3. Fay: Mean PQ Scores over Occasions	84
4. Bob: Mean PQ Scores over Occasions	104
5. Cal: Mean PQ Scores over Occasions	128
6. Mean occasion scores for all subjects for the interview PQ	165

CHAPTER I

INTRODUCTION

How does a student therapist organize and change her evaluation of her therapy skills over the course of two on-going processes, psychotherapy and supervision? This was the question addressed by this study.

Although there have been over 50 research studies on psychotherapy supervision published in the last 10 years, Doehrman's (1976) statement "little or no research into the supervisory process is reported in the literature" is still true. A related phenomenon is that there has been little feedback between research and clinical practice of supervision. It will be argued that this is because research has not been relevant to or representative of clinical practice for a number of reasons which also have contributed to the lack of study of the process of changes undergone by student therapists in psychotherapy and supervision.

Supervision Research

It is still widely agreed that the process of supervision has not been subject to research (Cooper, 1984; Holloway & Hosford, 1983; Stenack & Dye, 1982; Ralph, 1980). Three related reasons for this will be examined: (a) the use of hypothesis confirming designs, (b) the emphasis on outcome, and (c) the use of group designs.

Hypothesis confirming designs. The research literature on supervision has been characterized by the use of experimental and quasi-experimental designs to test the validity of predetermined hypotheses (Holloway & Hosford, 1983). This has usually meant that independent and dependent variables are picked in varying combinations from a list including empathy (e.g. Berg & Stone, 1980; Handley, 1982; Heppner & Handley, 1981), supervisee and/or supervisor satisfaction (e.g. Heppner & Roelke, 1984; Holloway & Wampold, 1983; Worthington & Roelke, 1979), and supervisors' perceived expertness, attractiveness and trustworthiness (e.g. Dudenhoff, 1981; Heppner & Handley, 1981, 1982; Rickards, 1984). Hypothesis confirming designs have isolated discrete variables, and with few exceptions have been one-shot, or pre-post. This precludes an examination of the process of supervision over time.

This type of research has been criticized for shoddy methodology, vague or global measurements of variables, restricted samples, etc. (Lambert, 1980). Yet the origin and

suitability of the hypotheses which are selected have rarely been questioned. The hypotheses are often derived from counseling (Holloway & Hosford, 1983) and psychotherapy, or from other paradigms such as interpersonal attraction (e.g. Hester, Weitz, Anchor & Roback, 1976) and attribution theory (e.g. Ward, Friedlander, Schoen & Klein, 1985; Worthington, 1984), rather than from supervision itself.

The use of hypothesis confirming designs in supervision seems premature (Holloway & Hosford, 1983), since there has been no systematic identification of important questions to ask about psychotherapy supervision (Blocher, 1983). Researchers have spent more time testing hypotheses than developing good hypotheses to test. Thus, the extensive premature use of hypothesis confirming designs in supervision research has resulted in the study of questions imported from other areas, and the neglect of basic questions about psychotherapy supervision.

Emphasis on outcome. A related reason for the lack of research on the process of supervision is the general emphasis on outcome (Cooper, 1984). The problem with concentrating on supervision outcome is that it does not describe the process whereby it is achieved (Ralph, 1980). Supervision is taken as a given, and the effect of this ill-defined process on the achievement of various goals is studied.

A distinction has been made between outcome goals, which involve the supervisee learning psychotherapy, and

process goals, which involve the supervisee/supervisor relationship (Blocher, 1983; Goodyear & Bradley, 1983; Lambert, 1980). Outcome goals used as dependent variables have primarily been ratings of supervisees' facilitative skills such as empathy, regard and congruence. These rating scales have been widely criticized as being unreliable, and relevant more to basic interviewing than psychotherapy (Holloway & Hosford, 1983; Lambert, 1980; Matarazzo, 1979). Lambert (1980) has recommended that they no longer be used in research on supervision. A more recent outcome measure has been retrospective ratings by supervisees and/or supervisors of perceived supervisor impact, usually on 1-3 items (Heppner & Handley, 1981; Heppner & Roelke, 1984; Worthington & Roelke, 1979). Such global ratings of impact at one point in time also appear to be of limited value.

Outcome goals have often been used as dependent measures in analogue studies involving one-shot simulations of supervision, which are not even cross-sections of an ongoing process. This seems a very weak way of determining the outcome of psychotherapy supervision.

Process goals, paradoxically, have also been extensively used as outcome measures in supervision research. A typical paradigm involves the effect of supervisors' behaviours (measured by retrospective frequency ratings by supervisees) on supervisees' satisfaction with supervision or ratings of supervisors' expertness, attractiveness and trustworthiness

(Heppner & Handley, 1981, 1982). Ratings of process goals such as satisfaction are very limited measures of outcome (Albott, 1984; Holloway & Hosford, 1983).

A more general problem with the outcome/process goals dichotomy is that both have been used as measures of outcome and neither has been used as measures of process. One notable exception is that of Doehrmann's (1976) study which used qualitative and rating scale measures of the interpersonal relationship of the supervisee and supervisor to study the process of supervision weekly over a period of 20 weeks. However, her study included no measures concerning supervisee's learning of psychotherapy skills.

Group designs. A third related reason for the dearth of process research in supervision has been the almost exclusive use of group designs, which study a group of subjects once or twice and pool the results. This has been termed "extensive design" (Chassan, 1979). Results of group design studies are most useful for broad generalizations and purposes such as program planning or evaluation. However, there are many problems with group designs, particularly in the areas of external validity and interpretation of results (Chassan, 1979; Neufeld, 1977). These include the difficulty of selecting homogeneous samples, and the bias favoring the null hypothesis with small samples. Statistically significant results may not be clinically significant (Barlow, 1981).

Group comparisons result in the washing out of individual variation "which may be crucial to the interpretation of the processes generating the data" (Coxon & Jones, 1993, p. 172). This may mean that group designs, - like hypothesis confirming designs, have been prematurely used in supervision research. "Conventional between-group designs may not be the best way to start an investigation of conditions that may significantly affect behavior" (Leitenberg, 1973, p. 97).

The final major problem with group designs is that it is difficult to apply the results clinically (Barlow, 1981; Chassan, 1979; Neufeld, 1977). In regard to psychotherapy, Strupp (1981) stated "if we carry out group comparisons without sustained attention to the process of individual dyads we shall deprive ourselves of the most important opportunities that systematic research has to offer" (p. 217). This surely applies with equal vigour to the study of psychotherapy supervision.

An Alternative Approach to Supervision Research

The use of hypothesis confirming designs, an emphasis on outcome, and group designs are definitely (though not necessarily) related, and characterize the research literature on psychotherapy supervision. They are related in a typical formula such as "does a certain variable have a certain effect on supervisees on the average?" The most unfor-

fortunate result of this formula is that research has had little impact on the clinical practice of psychotherapy supervision (Brammer & Wassmer, 1977; Loganbill, Hardy & Delworth, 1982b).

The present study proposed a different formula: "what changes does a student therapist undergo over time in the concurrent processes of psychotherapy and supervision?" This study attempted to integrate alternative strategies from a number of sources: the use of hypothesis generating design, an emphasis on process, and single case design.

Hypothesis generating designs. Recently several authors have advocated the use of hypothesis generating designs in supervision research, variously called exploratory descriptive techniques (Holloway & Hosford, 1983), hypothesis-finding (Mayman, 1976), "the systematic use of clinical methods in psychology for the purposes of theory generation" (Balph, 1980, p. 243), systematic naturalistic research (Doehrmann, 1976), and investigative field studies (Hart, 1982; Sansbury, 1982). Hypothesis generating designs involve systematic descriptive observation, and are more conducive to a study of process than are hypothesis confirming designs.

It has been widely noted that the supervision literature contains much more "description" than "research" (Bordin, 1983; Brammer & Wassmer, 1977; Holloway & Hosford, 1983; Loganbill, Hardy & Delworth, 1982a; Kagan & Werner,

1977; Reisman, 1980; Yogeve & Pion, 1984). This description/research dichotomy has been drawn to criticize description as unevaluated, clinical, informal and speculative, or to defend it as presenting "dearly bought clinical wisdom and the rich complexities of supervision" (Reisman, 1980, p. 303). However, controlled descriptive observation of process can be more than "non-quantifiable, idiosyncratic recapitulation" (Holloway & Hosford, 1983, p. 75).

Hypothesis generating designs involve both description and research. Neufeld (1977) stated that descriptive research has low status because it has been seen as simply the reporting of measures of central tendency of variables. However, he believed that the description of relationships between variables, or "patterned explanation" (Burden, 1983, p. 118), is an important part of clinical research. Hypothesis generating designs can be employed with methodological rigour, especially in regard to content validity. This is often unacknowledged because descriptive observation has sometimes been poorly done (Burden, 1983), although poor methodology has not stopped the flow of hypothesis confirming research in supervision.

Hypothesis generating designs have been proposed as an alternative more suited to the study of the process of psychotherapy supervision which could lead to the identification of important hypotheses.

Emphasis on process. The present study focused on process rather than outcome. Process was defined as the pattern of changes over time undergone by a student therapist in psychotherapy and supervision concurrently. Supervision is a task-oriented process which by definition involves the student therapist conducting psychotherapy with a real client. Yet supervision research has generally studied supervision in isolation from the supervisee's psychotherapy.

As previously mentioned, the study of process has generally been limited to supervisor/therapist relationship variables, even when studied at only one point in time. However, the process of changes undergone by a supervisee is much broader. This leads to a consideration of what changes, and of evaluation of the goals of supervision.

Critics of supervision research have called for better evaluation in general (Albott, 1984; Bordin, 1983; Lambert, 1982; Matarazzo, 1978). Better evaluation would comprise multiple goals rather than a global goal, and would be situation specific (Bordin, 1983; Lambert, 1982). The global goal of supervision is for the student therapist to learn how to do psychotherapy, while the specific goals or tasks depend on the psychotherapy and supervision orientation. The type of supervision in the present study was a systems approach (see Method section for a more complete description) which is not bound by any specific theory of psychotherapy. The specific goals of the systems approach involve

the student therapist being able to clinically observe relevant data, interpret data according to systems principles, and develop action strategies so that for any event in therapy the therapist can ask questions from multiple points of view. This involves more than observable behaviour; the student therapist must be able to see or frame what she does.

These specific goals of systems supervision have been shared by writers of different orientations, such as ego psychology, "the changes that trainees report seem to be a facet of ego development - that is enduring changes in schemas about the self and others" (Ralph, 1980, p. 249); psychoanalysis, "first, an adequate presentation to the student of data in terms meaningful to him; second, the incorporation of this data by the student; and third, the ability to organize his/her experiences cognitively and to generalize from the information" (Wolberg, 1967, p. 1027); and a cognitive developmental approach, "the ultimate focus of the developmental supervisory model is, however, on the acquisition of new more complex and more comprehensive schemas for understanding human interaction" (Blocher, 1983, p. 29).

In clinical practice as well as in research it has been noted that "systematic evaluation during supervision has been minimal" (Leddick & Bernard, 1980, p. 193). Rosenbaum (1984), in a small informal survey, found that supervisees and supervisors could not readily articulate (nor agree on)

explicit goals to be evaluated in supervision. There has been a call recently for the ongoing evaluation of a student therapist's learning of psychotherapy in supervision rather than one final evaluation at the end of supervision (Albott, 1984; Bowers, Gauron & Mines, 1984; Cooper, 1984; Hosford & Barmann, 1983; Patterson, 1983; Rosenbaum, 1984). This would be conducive to research on the process of changes undergone by a student therapist in supervision (Hart, 1982), as well as desirable clinically.

To have the student therapist involved in defining goals and evaluating changes in her learning of psychotherapy has been advocated by many clinicians (Blöcher, 1983; Bordin, 1983; Bowers, Gauron & Mines, 1984; Cooper, 1984; Dowling, 1984; Hosford & Barmann, 1983; Rosenbaum, 1984), although researchers have been silent on this point. The benefit of such student collaboration is usually seen as promoting involvement in supervision. Some more far-reaching benefits could include encouraging clinical research (Kiesler, 1981), and promoting a long-lasting self-evaluative attitude to improve psychotherapy with future clients (Dowling, 1984; Rosenbaum, 1984). Dowling (1984) stated that self-evaluation of therapy performance is an aspect of clinical competence which students should learn or be explicitly taught during supervision.

Thus it can be seen that process involves more than interpersonal relationship issues. Process should include on-

going evaluation of changes in specific goals, determined both by the type of therapy and supervision, and by the individual student therapist. This type of process would be valuable both to research into the supervisory process, and to the clinical practice of supervision.

Single case design. The third related strategy used in the present study was the single case design. Single case designs involve gathering a large amount of data on one or more individuals, often on a large number of occasions, and analyzing the data for each individual separately. As such, single case design lends itself to the study of pattern, especially pattern over time, i.e. process. Single case or intensive design "depends upon the acceptance of a general underlying variability within the subject ... with respect to his day-to-day or week-to-week evidences of behavior, affect, signs, and symptoms which are regarded as pertinent to the description and understanding" (Chassan, 1979, p. 227). This practically requires the study of process, for:

while a static single observation of a single static aspect of an individual's function may be unique and unrepeatable, being the outcome of an unrepeatable complex of determinants, the control of a process in any single organism, however approximate, is probably repeatable in many other organisms. (M. B. Shapiro, 1961b, pp. 258-259)

The use of single case designs in psychology has been widely popularized in the last 20 years by behaviour modification researchers (Hersen & Barlow, 1976; Kazdin, 1978, 1981, 1982a, 1982b; Kratochwill, 1978). The behavioural approach to single case designs has been characterized by a focus on frequencies of one or a small number of observable behaviours, treatment reversals, and a preference for visual inspection of graphs rather than statistical analysis of data (Parsonson & Baer, 1978).

However, there have been a growing number of advocates for the use of single case designs in broader areas of clinical psychology, especially psychotherapy research (Bolgar, 1965; Chassan, 1979; Elliott, 1983; Hayes, 1981; Leitenberg, 1973; McCullough, 1984a, 1984b; Melges, 1972; Neufeld, 1977; M. B. Shapiro, 1961b, 1963, 1966, 1969a; Strupp, 1981). Examples of single case design research in psychotherapy and psychopathology have used multiple interrelated variables, often more subjective than observable behaviour, and multivariate statistical analysis (Melges, Anderson, Kraemer, Tinklenberg & Weisz, 1971; Neufeld, Rogers & Costello, 1972; Slater, 1970, 1976; D. A. Shapiro & Hobson, 1972; M. B. Shapiro, 1961a, 1964a, 1969b; M. B. Shapiro, Litman & Hendry, 1973; M. B. Shapiro, Litman, Nias & Hendry, 1973; M. B. Shapiro, Marks & Fox, 1963; M. B. Shapiro & Post, 1974; M. B. Shapiro & D. A. Shapiro, 1974).

The only example of a single case design study of psychotherapy supervision was that of Doeberman (1976), who studied parallel process in psychoanalytic therapy and supervision with two supervisors, four supervisees, and eight clients over a period of 20 weeks. Her study has been praised as a significant contribution to process research (Chassan, 1979, pp. 380-386), but has been largely ignored in the supervision literature. The focus of her study was the supervisor/supervisee relationship, and her main findings were qualitative data from interviews. In an appendix, she included results of rating scales administered to supervisors and supervisees each week, in the form of graphs of mean scores. As with some behavioural researchers, she evinced a bias against statistical analysis in single case designs, although Chassan (1979) stated "some further statistical analysis of the data might also have been performed well within the spirit of the general approach to the use of statistics favored by Doeberman" (p. 385).

Single case designs are very suitable to the study of continuous processes such as psychotherapy supervision. Processes occur in individuals, and may be obscured by pooling data across groups. The use of single case design, in conjunction with a hypothesis generating design and an emphasis on process appears to be a fruitful approach to the study of changes undergone by a student therapist in the course of supervised psychotherapy.

The Present Study

The present study used a hypothesis generating design which was primarily descriptive of patterns and relationships over time. There was an emphasis on process, i.e. continuous change over time, but on a task-oriented process--the learning of psychotherapy. A customized format was used to define goals of supervision and psychotherapy for each student therapist. Some of the goals were defined by the supervisor and were specific to the systems approach to supervision and therapy. These goals were broader and more subjective than observable behaviour; they included the student's ability to identify, interpret, and form strategies. Each student therapist defined the remaining goals for herself. These goals were specific to the therapist and her psychotherapy relationship with a client.

Since the student therapist is the only person who directly participated in both of the processes of psychotherapy and supervision, the goals were evaluated for these processes by each therapist. Self-evaluation by the student therapist has relevance to the clinical practice of supervision, for it can give the supervisor a sense of how the therapist organizes and changes her way of seeing therapy in response to supervision and psychotherapy.

A single case design was employed. Although there were several student therapists, the goals were customized for each, and the data were analyzed individually to show the process of changes for each student therapist.

A multivariate approach was used - both in defining and evaluating multiple specific goals, and in the use of multivariate statistics to analyze the data.

Research questions. Although this type of study does not test specific hypotheses, there were theoretical and practical questions which guided the research. The questions addressed by the present study were:

- Is there systematic change over time in a student therapist's evaluation of her goals in psychotherapy and supervision?
- What is the pattern of change for each student therapist?
- Are changes in a student therapist's self evaluations linked with ongoing events in psychotherapy and supervision?
- Are consistent patterns evident for psychotherapy and supervision sessions, and for periods between sessions?

CHAPTER II

METHOD

Subjects

The subjects were six students registered in a graduate course on a systems approach to psychotherapy which included a supervised therapy practicum. Three were M.A. students and three were Ph.D. students in a graduate program in clinical psychology. All had taken at least one prior therapy course and had previously seen at least one client in supervised psychotherapy. They ranged in age from mid-twenties to early thirties. There were three males and three females; two males were married and the remaining four students were single.

Design

The design of this study involved tracking changes in student therapists' evaluations of their difficulty/facility in selected therapy skills before and after every therapy and supervision session over the course of the practicum. The study was primarily descriptive of the processes found, not experimental.

This study used the so called "single-case design", more aptly termed "intensive design" (Chassan, 1977) for there was more than a single subject. Single-case design in the context of the present study meant that response patterns over time were analysed and interpreted for each subject separately. The focus was on variability across time within the individual, rather than on variability across individuals within the group.

There was no random selection of the subjects, the supervisor, or the therapy course. The particular supervisor and therapy course were chosen for study because of (a) theoretical interest and relevance (systems theory), and (b) accessibility. The students in the class were self-selected, as they had enough interest to enroll in this elective course. Those students in the class who were ultimately subjects were further selected on the basis of their willingness to participate and their completion of the research requirements.

In single case designs, the random selection of occasions of measurement corresponds to the random selection of subjects in group (extensive) designs (Chassan, 1977). The random selection of occasions was not possible due to the complexities of coordinating the schedules of therapists, clients, and supervisor.

Setting

The Therapy Course

This study was conducted in the context of a two-semester course entitled "Theory of Systems in Relation to Therapeutic Process" and "Application of Theory of Systems to Psychotherapy and Clinical Research". This elective course was offered to advanced clinical psychology graduate students and could be used in partial fulfillment of clinical area requirements for therapy courses.

The course was based on a hierarchically organized schema, outlined in Table 1, evolved by the professor to relate the theory of systems to the pragmatics of psychotherapy. The purpose of the schema was to interrelate various content areas of psychotherapy, and integrate different levels of abstraction of thinking about psychotherapy. The schema provided a structure for the course, and was used in various ways. In the first semester, the schema was used as a framework for theory. In the second semester, the schema was used to prompt the students to look at their cases from multiple points of reference. A list of questions based on the schema was given to the students to answer about their clients. Some of the items in the instrument used in the present study were based on the schema. Thus the hierarchical schema also served to integrate the theoretical and practical phases of the systems course, and to relate the present research to the course.

Table 1

Hierarchical Schema Relating Systems Theory to Psychotherapy

 Superordinate Level

 Process/Tautology/Difference/Relational

 Abstract Level

Philosophy	Adaptation	Communication	Development
Unit of Inquiry		Hierarchy	

 Applied Level

Problem	Goals	Contract	Relationship	Techniques
	Process	Communication	Context	

 Pragmatic Level

 Specifics of Clinical Knowledge

The first semester of the course was a theoretical introduction. The students were given selected readings, and an introduction to systems terminology and concepts. Examples of interviews and therapy on audio and videotape were discussed. Brief instructions on initial interviewing were given. The students were introduced to the Role Repertory Technique (Kelly, 1955), which they used as a clinical instrument in the second semester. In general, the first semester functioned to give students enough theory and abstractions to form a background in systems theory.

The second semester consisted of the supervision of selected clinical cases seen by the students in various settings. The student therapists were encouraged to see their clients twice weekly if possible. Most of the students conducted psychotherapy at the university Psychological Services Centre. One student therapist saw a client at a community hospital outpatient clinic where he was an intern. There were two group supervision sessions of three hours duration held per week. Half of the class was in each session, so every student received approximately one hour of direct supervision and two hours of exposure to other students' supervision each week.

The students were instructed to audiotape all therapy sessions. They were given a list of questions, based on the hierarchical schema, to answer about their clients (see Appendix A for the list of these questions). The answers to

the questions were developed and elaborated over the course of the semester. The students administered the Role Repertory Technique to their clients near the beginning and the end of therapy. The Role Repertory Technique was used by the students as an assessment instrument as an adjunct to the supervision process in the understanding of their clients.

The role of each student therapist in the supervision sessions each week included (a) responding to the Personal Questionnaire (described below) before and after the session; (b) presenting her therapy case orally, by audiotape, and by responses to the schema questions; (c) listening and responding to the supervisor and the other students concerning her case; and (d) observing and participating in other students' supervision.

The Supervisor

The supervisor was a male Ph.D. clinical psychologist who was a professor at the university. He had 21 years experience in conducting psychotherapy supervision, and had supervised approximately 200 student therapists at all levels of experience. This was the fourth time he used the group systems format for supervision, although there have been considerable changes to the format each time.

The Supervision

The following are the stated views of the supervisor on teaching and supervising psychotherapy. Systems therapy involves a multiperspective relational viewpoint. The theoretical goal of systems supervision is multiperspective positioning of the therapist's thinking so that for any event in therapy, the therapist can ask questions and develop clinical hypotheses from multiple points of view as exemplified in the hierarchical schema. The therapy skills to be built are:

- the clinical observation of data, i.e., to see patterns and connections related and relational,
- the interpretation of data, i.e., systemic understanding and clinical hypothesizing,
- the development of action strategies, i.e., operating, and
- the ability to cycle recursively between and within the above three levels.

The strategies of systems supervision are:

- to offer enough advice and suggestions on the pragmatic level of the hierarchy for the student therapist to cope with specific situations, and
- to challenge the therapist's system to encourage the development of her schema for therapy.

There are a number of techniques advocated by the supervisor to challenge the therapist's system, including:

- questioning.
- prompting with the use of the hierarchical schema
- switching focus to another student therapist
- giving the student the opportunity to observe and participate in the ongoing supervision of other student therapists' cases.

Instrument

The Personal Questionnaire (PQ) was devised by Shapiro (1961a) as a technique for constructing customized instruments to monitor psychological changes specific to individuals over time. Phillips (1976) defined the PQ as:

3 a partial scaling, by the general direct method, of a certain double set of objects, along some relevant dimension. The double set of objects consists, firstly, of the levels of intensity of a condition represented by a number of reference statements and, secondly, of the levels actually assumed by that condition on a number of different occasions. (p. 212)

Shapiro and his colleagues have used it primarily to track unpleasant experiences over time in depressed inpatients. They have used it to follow the effects of treatment (e.g., psychotherapy) or two simultaneous treatments (e.g., non-directive psychotherapy and rational training, Shapiro, 1964a) on the process of depression. However, it has been stated (Phillips, 1976) that the PQ could be used to study many

different processes in which short-term changes over time in psychological self-reports are of interest.

For this study, it was thought that the PQ could be used to measure changes in student therapists' self-evaluations of therapy skill over the course of a semester of supervision and psychotherapy, rather than changes in patients' self-reports of unpleasant symptoms over the course of treatment(s). The PQ was selected as a possible instrument because it is customized for each subject, is brief to administer, and allows for a measure of reliability of responding for each subject. As well, irrelevant response sets are minimized by the paired comparison method of responding. To determine if the PQ would be a useful and practical technique in this study, a brief pilot study was conducted. The six students in the systems course rated their initial interviewing skills on 10 PQ type items over a two week period (see Appendix B for a more detailed report of the pilot study). The PQ technique was found to be appropriate for the present purpose.

Construction of the PQ

There are four steps in the construction of the PQ; eliciting items, drafting reference statements for each item, calibrating the reference statements, and constructing the final form of the PQ. These steps are outlined here (see Appendix C for more detailed instructions on the construction of the PQ.)

Eliciting items. The number of items in each subject's PQ was 30 or 31. Twenty items were elicited in interviews with the supervisor, and are listed in Table 2. These 20 items represented the goals for therapy skills which the supervisor wanted the student therapists to achieve as a result of the systems course and the supervision. The content of these items was based on the categories of the Applied Level of the hierarchical schema shown in Table 1. The Applied Level categories were chosen because they are the framework for the therapy course, the supervisor used them in supervision, and the students answered written questions about their clients based on these categories. Thus, it should contribute to the content validity and relevance of the PQ to use the same framework as was used in the supervision to look at therapy. These 20 "category" items were used for all subjects in the study.

The remaining 10 or 11 items were elicited separately from each subject in individual interviews. These items represented personal goals and/or problems regarding therapy skills which each student therapist had for herself with her particular client and therapeutic relationship. These "personal" items were thus specific to each case. The content generally concerned the therapist's affective attitude and ways of relating to her client.

Drafting reference statements for items. For each item, three statements were drafted to represent different

Table 2

PQ Items Elicited from the SupervisorCategoryProblem

1. On the whole, I am comfortable with this client's defined problem.
2. I can clearly conceptualize this client's problem from multiple perspectives.
3. I can help this client with the defined problem.

Goals

4. I believe that this client has potential for change.
5. I have a clearly formulated overall plan for therapy with this client.

Contract

6. I have control over the therapeutic process with this client.
7. I know what this client expects from me and from therapy.

Relationship

8. I can see things from my client's viewpoint.
9. I identify with this client.
10. On the whole, I am close to knowing my client.

Techniques

11. I use specific strategies to direct the flow of therapy.
12. On the whole, my client is cooperative with my therapeutic strategies.

Process

13. I see expected changes occurring in my client.
14. I see order in this therapy relationship.

Communication

15. My responses to this client flow easily and naturally.

Context

16. I am comfortable and familiar with my client's cultural and social background.

Metacategory Items

17. I easily find examples from my therapy sessions to illustrate the category questions and systems principles.
18. I can interpret what happens in therapy according to systems principles.
19. I can formulate strategies of action for therapy from the systemic interpretation of the case.
20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies.

levels of intensity--a goal statement, an improvement statement, and a problem statement. The original wording was kept as much as possible--the supervisor's wording for the 20 category items, and each therapist's wording for the 10 or 11 personal items. For example, Table 3 shows the three reference statements for the first category item.

Table 3

Reference Statements for Category Item 1

Level	Item	Statement
Goal	1. A	On the whole, I am comfortable with this client's defined problem.
Improvement	B	I am somewhat comfortable with this client's defined problem.
Problem	C	I am not comfortable with this client's defined problem.

Calibration. The reference statements drafted for each item were calibrated to determine that the statements actually represented a goal, improvement, and problem level to the subject. The subject rated the level of therapeutic skill represented by each reference statement. For the calibration procedure, the resulting 90 or 93 statements for the 30 or 31 items of each PQ were typed on separate 3" by 5" white index cards. The subject rated each reference statement on a 9-point scale of therapeutic skill, ranging

from very great facility (1) to very great difficulty (9). The subject's ratings were checked to ensure that there was a clear discrimination among the three levels of intensity for each item, and that the subject and the researcher had the same understanding of the PQ. Any discrepancies in a subject's ratings were discussed with her, and the item was reworded if necessary.

Final form of the PQ. The response format of the PQ is paired comparisons, i.e., two statements were presented at a time and the subject was asked to choose one. For each item there were three paired comparisons (all possible combinations of the three statements taken two at a time). For example, the paired comparisons for the first category item shown in Table 3 were between statements A and B; A and C; and B and C. The two statements in each comparison were typed one above the other on an index card. Thus, there were three cards for each item, and 90 or 93 cards for each PQ. The level of intensity of the top and bottom statements was counterbalanced across items to control for order effects.

Administration

The PQ was administered before and after each therapy and supervision session over the course of the second semester.

The cards for all items were shuffled together. The subject was presented with one card at a time. She was instructed to decide whether the top or the bottom statement on the card was nearer to her present state of therapeutic skill. If the top statement was chosen, the card was placed in a pile marked Top, otherwise it was placed in a pile marked Bottom. In this manner, all the cards were sorted into two piles.

Scoring

There are eight possible response patterns for an item, since there are two possible choices in each paired comparison, and there are three paired comparisons ($2 \times 2 \times 2$). Four patterns are internally consistent in that the choices for the three paired comparisons are mutually congruent. These were scored on a 4-point scale ranging from goal (1 - minimum intensity) to problem (4 - maximum intensity). Scores of 2 and 3 indicate much improvement and moderate improvement respectively. The other four response patterns are internally inconsistent in that the choice in one paired comparison contradicts the choice in another paired comparison. These were scored from 1 to 4, according to the score of the consistent response pattern to which they were most similar.

Reliability and Validity

The reliability and validity of the PQ are specific to each subject (Neufeld, 1977, p. 14).

Requiring judgements on three paired comparisons per item increases reliability and permits a measure of reliability in terms of internal consistency of responding for each subject. The proportion of inconsistent response patterns for all administrations of the PQ was calculated. As well, a significance test for consistency for each item was calculated (Phillips, 1976) (see Appendix C for the formula).

Since PQ items are specifically constructed for and calibrated by the individual subject, the ambiguity of content is minimized and relevance is maximized (Shapiro, 1963, 1964a). Thus, Neufeld (1977) stated "the main advantages of personal questionnaires are their content validity" (p. 31). Neufeld (1977) also noted that PQ's "afford potentially greater concurrent validity in that items are apt to be more sensitive to fluctuations in psychological states from one occasion to the next" (p. 14).

Irrelevant response biases such as acquiescence and position set are minimized by requiring three forced choices between two statements per item. The effects of social desirability are somewhat minimized by the calibration procedure, and by focusing on changes over time rather than the absolute level of scores (Phillips, 1976). However, it is

possible for a subject to deliberately falsify responses (Neufeld, 1977; Phillips, 1976). To avoid this possibility, there was an attempt to involve the subject in the research, by answering any questions, and by promising her a copy and a discussion of her results.

Procedure

The collection of the data began once all students in the class had seen clients for at least four sessions. This point in time was selected (a) because the supervisor instructed the students to meet with their clients for three or four sessions before making a therapeutic contract, and (b) so that the personal items elicited from each student therapist would be based on more than one initial session.

The calibration of the 20 category items was conducted for all subjects at the beginning of their supervision session. Individual interviews were then set up with each subject in order to (a) get her verbal consent to participate, (b) get demographic information on the therapist and client, (c) check any discrepancies in calibration of the 20 category items, and (d) elicit 10 or 11 personal items. The statements for the personal items were later given to each therapist to calibrate. A second individual interview was conducted if necessary to check discrepancies in calibration of personal items. The final form of the PQ was constructed for each subject. The PQ was administered to the subject

before and after every therapy and supervision session for the semester. The researcher attended supervision sessions as an observer, and took process notes of the supervision, and of the therapy as reflected in audiotapes and therapist reports presented in supervision.

Data Analysis

The subject's sorts of the PQ cards were recorded and scored for each administration. Means were calculated on each occasion for the category items, the personal items, and the whole test. The mean PQ scores for each occasion were graphed on an ongoing basis over the semester to provide a rough idea of changes over time as they occurred (Slater, 1970). This graph of mean PQ scores over occasions is a quick and simple way to see the subject's general evaluation of her therapy skills on any specific occasion, and to observe the effect of any event in therapy or supervision on the subject's perceptions of her performance. As the number of occasions on which the subject completed the PQ increases, the graph begins to show the sequence of changes in the subject's evaluations of her therapy skills as the therapy and supervision progresses. Thus the graph of mean PQ scores over occasions gives a general picture of the process of change in the subject's therapy skills from her point of view.

Methods of Data Analysis

The data for each subject were analysed separately. The PQ scores were entered into an items times occasions matrix. Slater (1970, 1976) has shown how such a matrix of PQ scores is similar to a role repertory grid, with items for constructs and occasions for elements, and demonstrated how it can be analysed by the same statistical procedures.

Following Slater's techniques, the matrix of PQ scores was subjected to a Principal Components Analysis (PCA), standardized across items. The transposed covariance matrix for occasions was also subjected to a Principal Components Analysis. Unlike Slater's method, component loadings were rotated to simple structure by a varimax rotation. This was done because "empirically, the factor structures resulting from Principal Components Analysis tend not to have 'simple structure'" (Harris, 1975, p. 164).

The Principal Components Analysis for items was used to look at the relationships among the items across time. If the items were highly interrelated, as would be expected, then a few principal components would account for most of the variance of the items. This would simplify the description of the data to a smaller number of dimensions, each composed of a number of items which changed in a similar way over time.

The Principal Components Analysis for occasions examined the relationships among the occasions across items.

Here, each component would represent a number of occasions with a similar pattern of responses to the items. Unlike items, occasions are connected to each other in a definite sequence by time. Thus, persistencies and shifts in patterns of responses as time passed (i.e., process) could be discerned.

PO items. The overall mean for items was calculated. The level where the overall mean was on the 4-point scale was noted to see the subject's average self-evaluation of her therapy skills. The range of item means was checked to see what range on the 4-point scale the subject used to evaluate herself. The mean of each item was examined and compared to the means of other items and the overall item mean.

The amount of variance (i.e., the sum of the squared deviations from the mean) was calculated for each item, and summed across items to give the total variance for items. The percentage of the total item variance accounted for by each item was examined to see which items had the most and least change over occasions. The amount of variance for each item was examined to determine if the personal items showed more variance than the category items (i.e., if the items elicited from each subject were more sensitive to change than the items elicited from the supervisor).

The Principal Components Analysis for items was examined. In certain cases, the correlation matrix for items

was examined to see the pattern of correlations between items. The number of components and the total amount of variance accounted for by all components were noted. The factor pattern was examined. Each component was considered for the amount of variance it accounted for, and for the content of items with significant loadings.

Graphs of the component loadings plotted against each other, to a maximum of the first three components, were examined to see the relationships between items in a spatial manner.

The rotated component loadings for items were examined in a similar manner, and compared with the unrotated loadings.

Occasions. The means, variance, and Principal Components Analysis for occasions were examined in a similar way as for PQ items. Rotated occasion loadings based on the occasions covariance matrix do not generally appear to be meaningful past the fifth component, so they were not calculated. Due to the method of analysis, the axes of the components for occasions were the same as those for items. Thus, the occasions loading significantly on a particular component were interpreted in terms of the items loading significantly on that component. Reciprocally, the items loading on a particular component were given a more precise theme label by regarding the occasions (and the mean PQ scores of the occasions) with significant loadings on the component.

Some additional nuances in interpretation arose because scores for occasions are not discrete as for items, but are related to each other in "a temporal sequence related to concomitant events" (Slater, 1976, p. 111). Thus in addition to examining the occasions with significant loadings on each component, the occasion loadings on all components were regarded simultaneously in temporal sequence. The mean PQ scores for occasions gave rough reference points for the significant occasion loadings.

Standardized distance scores between occasions were calculated (Slater, 1977, p. 94). Each distance score represents a summary statistic of the degree of similarity in the subject's evaluation of therapy skills on two occasions over all dimensions. The expected distance between any pair of occasions in a particular matrix is set at 1.0 (the unit of expected distance). Distances under 1.0 are less than expected and distances over 1.0 are greater than expected. A distance score of 0 indicates that the two occasions were scored identically, while a distance score of 2.0 indicates maximum dissimilarity between the two occasions.

CHAPTER III

RESULTS

Results are first presented for each student therapist individually. The student therapists are referred to in the following chapters by pseudonyms for identification. The results for Don, Eva, and Fay are presented in detail. The results for Bob, Cal, and Amy are then presented more briefly as the data for these subjects were minimal or unreliable. A similar format is used to report the results for each subject where data warrant, although the first case, Don, includes more explanatory detail on the manner of interpretation of results. First, specific information is presented on the student therapist, the client, and completion of research requirements. Then descriptive information on the PQ responses is followed by the results of the Principal Components Analysis of the subject's PQ items and occasions of PQ administration. The first unrotated component, which appeared to represent global evaluation of therapy for four subjects, is briefly considered. The interpretable components which emerged after varimax rotation are then presented. This is followed by an attempt at a

summary of the process of therapy and supervision for that student therapist. Additional information on each student therapist is included in separate appendices.

The results for Don, Eva, Fay and Bob are followed by a section comparing the content of the global evaluation components.

Therapist Don

Don was a single male M.A. student in his early thirties. Prior to the systems course, he had taken one psychotherapy course, had seen approximately 20 clients and had 5 supervisors. Concurrently with the systems course, he was doing a 20 hour per week therapy internship. He described his psychotherapeutic orientation as "evolving".

Don's client was a single male in his late twenties in his second year of a B.Sc. program. The client voluntarily sought psychotherapy at the university Psychological Services Centre "because he's lonely and doesn't know how to meet people". He had had previous group psychotherapy and medication for depression. The client was assessed by the supervisor to be more seriously disturbed than the other ther-

apists' clients, with depression, social deficits, lack of differentiation, and narcissism.

The PQ for Don had 31 items; the 20 category items (Items 1 to 20), and 11 personal items (Items 21 to 31) elicited from Don. The content of Don's personal items concerned goals for the relationship and process aspects of psychotherapy with his client. Therapist Don's calibration of the 93 PQ statements was satisfactory after 14 of the category statements were recalibrated. Therefore Don appears to have understood the differences in the level of therapeutic skill between the goal, improvement, and problem statements for each item in the manner intended. (See Appendix D for Don's personal items and calibration scores.)

Don had four therapy sessions and three supervision sessions before the first administration of the PQ. The PQ was administered to Don on 29 occasions; Before and After 7 therapy sessions and 6 supervision sessions, plus After 2 therapy sessions when he forgot to sort the PQ cards Before, and Before 1 supervision session which was cancelled. With 31 items administered on 29 occasions, Don had a total of 899 response patterns, of which only 10 (1.1%) were inconsistent. This is significantly less inconsistent than would be expected on the basis of completely random responding at the .001 level. Thus, Don appears to have responded to the PQ in a consistent and reliable manner. (See Appendix D for Don's occasions of PQ administration, raw PQ scores, and calculations for significance of consistency of responding.)

Description of Don's Evaluation of Therapy Skills

The overall mean PQ score was 2.5, which is the mid-point of the 4-point scale. This indicates that Don evaluated his therapy skills, on average, to be on the improvement level of the scale. The range of item means was 2.62 (from 1.28 to 3.9), which is broad, showing that Don used almost the entire scale range. Thus Don rated some therapy skills very positively over the semester, others very negatively, and many in between.

The mean PQ scores for all occasions are graphed in Figure 1. Each occasion of PQ administration is marked by number on Figure 1. This figure shows the changes in Don's average evaluations of his therapy skills over the semester. The range of occasion means was 1.38, which is fairly broad. On the scale axis of Figure 1 this range is marked by an arrow. The arrow demarcates the large difference in the level of Don's average evaluation of his therapy skills on different occasions. On some occasions Don evaluated his therapy skills fairly negatively, such as on Occasion 4 when the mean PQ score was 3.32. On other occasions Don evaluated his therapy skills much more positively, such as on both Occasions 22 and 26 when the mean PQ scores were 1.94.

As the sequences of changes in Figure 1 shows, at the beginning of the semester Don rated his therapy skills fairly negatively. There were large changes from one occasion to the next, both within and between sessions. Don stated

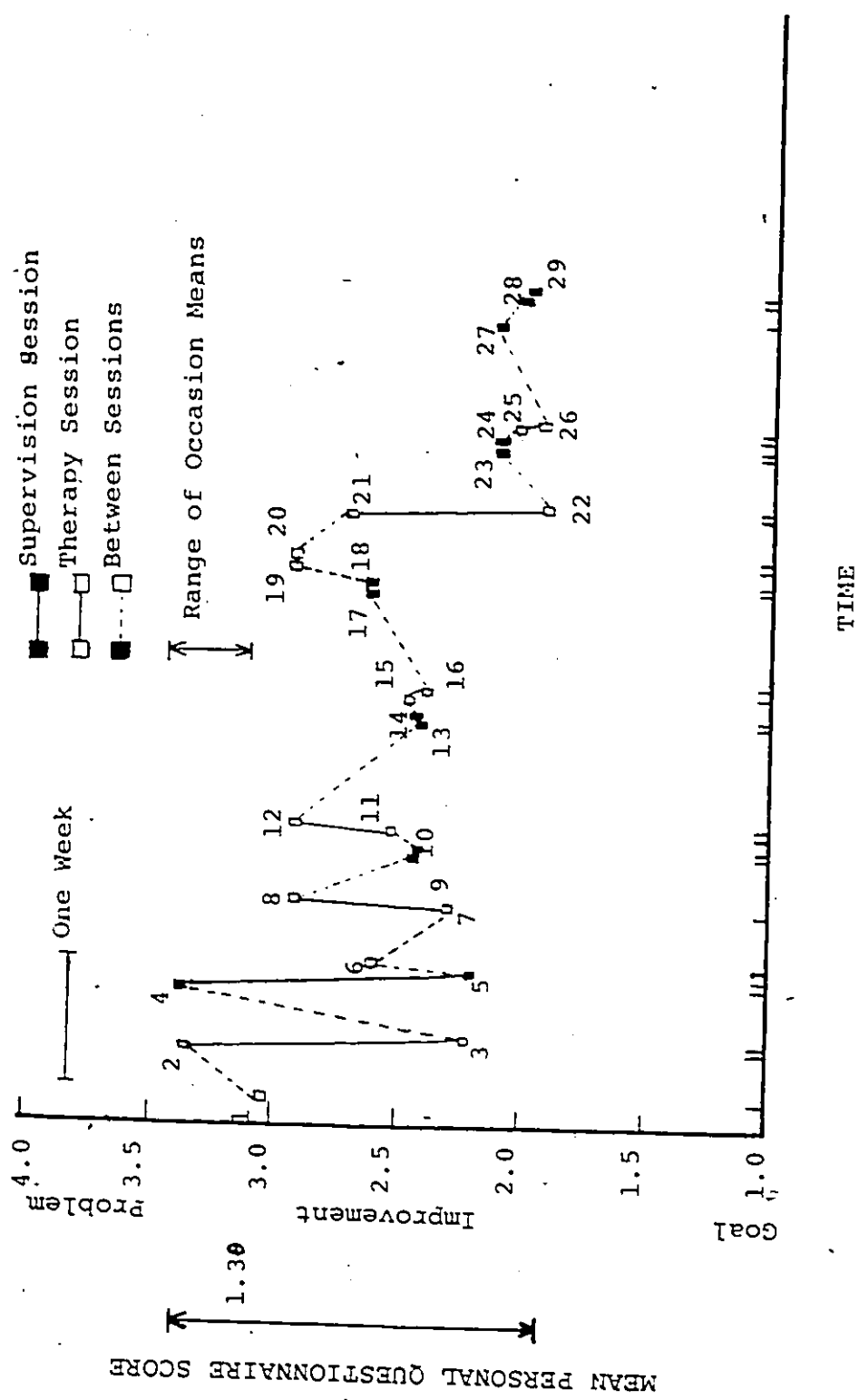


Figure 1. Don: Mean Personal Questionnaire scores over occasions.

"I was searching around. I would think one way then think radically different." By the middle of the semester, Don began to evaluate his therapy skills more moderately. His ratings showed little change from Before to After sessions, and showed more change from After one session to Before the next session. Don stated that at this time the client "was very resistant to getting involved in anything that's upsetting". During one therapy session near the end, Don became much more positive in his evaluation of his therapy skills, from Occasion 21 Before to Occasion 22 After therapy. Unlike equally large changes in his ratings at the beginning, this shift to a more positive level of evaluation was sustained for several sessions. Until the end of the semester Don's ratings remained moderately positive, and changed very little from the level of Occasion 22. Don stated "I felt more comfortable. . . .I'd found an approach to working with the guy--my short term function of being supportive."

The variance for occasions showed that Occasions 1 through 4 were among the five occasions with the most variance, along with Occasion 26. On these occasions, Don's ratings of individual therapy skills were scattered widely across the 4-point scale. The ratings on these five occasions were also those which were most dissimilar to other occasions, as determined by the standardized distance scores between occasions. The occasions with the least variance were those toward the middle of the semester. On these mid-

dle occasions, Don's ratings for each therapy skill were closer to the mean for the occasion.

The variance for items showed that 7 of the 11 personal PQ items had more than the mean amount of variance. This suggests that Don's evaluations of those therapy skills which he identified himself changed more over the semester than his evaluations of the therapy skills identified by the supervisor. Somewhat paradoxically, the item with the most variance was 14 - I see order in this therapy relationship and the item with the least variance was 13 - I see expected changes occurring in my client. Thus there was much change over time in the way Don evaluated his ability to see order in the therapy relationship, but very little change in how Don saw expected changes in his client (the mean of 3.90 indicates that Don saw almost no expected changes in his client). Don explained that the items with more variance were not necessarily more significant to him, but represented issues which "I felt, saw, and thought about differently as therapy went on". He explained that some items with very little variance were also important, but "my concerns were very similar the whole length of therapy". [See Appendix D for the means and variance for Don's items and occasions.]

Principal Components Analysis

The Principal Components Analysis for Don yielded seven components with eigenvalues greater than 1.0 which accounted for 79% of the total variance. The first unrotated component will be briefly considered. The five interpretable components which emerged after varimax rotation will then be presented.

Global evaluation—unrotated Component 1. Component 1 appears to represent global evaluation, as indicated by the items with significant loadings. Don used these items, shown in Table 4, to evaluate his therapy interactions as generally positive. Since the PQ items are written in the first person active voice, it is helpful in interpreting the components to construct factor labels in a similar form. "I am doing well in therapy" is a commentary summarizing what Don was communicating through the grouping of items on this component.

This interpretation is enhanced by the occasions with significant loadings on Component 1, also shown in Table 4. This can be seen more clearly by referring back to Figure 1. The eight occasions with positive loadings are those when Don evaluated himself most positively on the mean PQ scores, and are at the end of the semester. Then Don was emphasizing the commentary "I am doing well in therapy". The four occasions with negative loadings are those when Don evaluated himself most negatively, and are close to the beginning

Table 4

Don: Loadings on Unrotated Component 1

"I am doing well in therapy with this client"

Loading	Item
0.98	25. I break into my client's rhythm when appropriate
0.81	10. On the whole, I am close to knowing my client
0.79	19. I can formulate strategies of action for therapy from the systemic interpretation of the case
0.79	16. I am comfortable and familiar with my client's cultural and social background
0.78	26. I instruct my client about people when appropriate
0.78	18. I can interpret what happens in therapy according to systems principles
0.76	8. I can see things from my client's viewpoint
0.71	14. I see order in this therapy relationship
0.70	21. I refrain from acknowledging my client before he's struggled with expressing himself
0.68	30. I feel my client's depression and confusion without distancing myself
0.67	28. I do not have a need to take care of my client
0.65	20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies
0.62	22. I proceed at my client's pace
0.61	27. I make appropriate connections and interpretations to my client
0.60	24. I check out how my client perceives our ongoing transactions
0.60	2. I can clearly conceptualize this client's problem from multiple perspectives
0.59	5. I have a clearly formulated overall plan for therapy with this client
0.54	29. I listen behind my client's words rather than to the content
0.52	17. I easily find examples from my therapy sessions to illustrate category questions and systems principles
0.45	7. I know what this client expects from me and from therapy
-0.52	12. My client is cooperative with my therapeutic strategies

Note. Items without significant loadings on this component were Items 1, 3, 4, 6, 9, 11, 13, 15, 23 & 31.

(table continues)

Table 4 (continued)

Loading	Occasion	Mean PQ Score
0.87	25. Before Therapy	2.06
0.86	22. After Therapy	1.94
0.85	28. Before Supervision	2.03
0.85	26. After Therapy	1.94
0.79	23. Before Supervision	2.13
0.77	24. After Supervision	2.13
0.70	29. After Supervision	2.00
0.63	27. Before Supervision	2.13
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-.41	8. After Therapy	2.94
-.78	1. After Therapy	3.03
-.79	4. Before Supervision	3.32
-.83	2. Before Therapy	3.29

Note. Accounts for 32.96% of the variance.

Component 1 and subsequent components are unipolar in that most of the significant item loadings are positive. This indicates that the items varied together, not inversely, over time, i.e., on some occasions these items as a group were rated positively and on other occasions they were rated negatively. Accordingly, the meaning of such components can be interpreted as a bipolar contrast, for example between "I am doing well in therapy with this client" and "I am not".

of the semester. Here, Don was negating the commentary. The occasions without significant loadings on Component 1 have more intermediate mean PQ scores, when whether or not "I am doing well" was less salient.

If this global evaluative component merely reproduced the mean PQ scores, it would provide redundant information since Don's global evaluation of his therapy skills on any occasion is already available. However, the item loadings on Component 1 indicate which therapy skills Don used as criteria to distinguish between "I am doing well" and implicitly "I am not doing well". Component 1 includes 9 of Don's 11 personal PQ items, which indicates that he used his own criteria for global evaluation. The 11 category items with significant positive loadings include all 4 metacategory skills concerning applying and synthesizing systems theory with therapy, as well as items from other categories concerning overall conceptualizing of the therapy interaction. Only Item 12 has a negative loading, suggesting the intriguing possibility that Don perceived doing well in therapy as varying inversely with the cooperativeness of his client.

This component also indicates what therapy skills Don did not use to state "I am doing well" since the items without significant loadings are unrelated to his global overall evaluation. With his ratings of these 10 items Don was communicating that these skills were not criteria for his general evaluation of any occasion as positive or negative, and

conversely, that the general evaluation of an occasion did not systematically affect his ratings of these items.

In summary, Component 1 provides another view of the occasion mean PQ scores as reference points for interpretation. This alternative view permits the observer to refer back to the particular means across occasions and simultaneously to note their relative relationship over time. The configuration of the occasion loadings on Component 1 in Table 4 mirrors the configuration of occasion means in Figure 1.

Specific commentary--rotated components. In contrast to the global unrotated component, the five rotated components divide the responses into multiple groupings which appear to represent specific commentaries or themes on how Don perceived the therapy interaction.

The first two rotated components appear to split the global commentary "I am doing well in therapy" of unrotated Component 1 into two more specific dimensions. The items with significant loadings on rotated Component 1 are shown in Table 5. Most are category items reflecting the supervisor's criteria which were part of the global evaluation commentary. It appears that Don's commentary with this grouping of therapy skills is "I understand the therapy process". These skills comprise the more cognitive, theoretical and long-term therapy skills.

Table 5

Don: Item Loadings on Rotated Component 1

"I understand this therapy process"

Loading	Item
0.99	2. I can clearly conceptualize this client's problem from multiple perspectives
0.77	7. I know what this client expects from me and from therapy
0.72	5. I have a clearly formulated overall plan for therapy with this client
0.70	10. On the whole, I am close to knowing my client
0.66	18. I can interpret what happens in therapy according to systems principles
0.64	19. I can formulate strategies of action for therapy from the systemic interpretation of the case
0.53	14. I see order in this therapy relationship
0.53	20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies
0.45	29. I listen behind my client's words rather than to the content
0.42	16. I am comfortable and familiar with my client's cultural and social background
0.39	25. I break into my client's rhythm when appropriate
0.39	27. I make appropriate connections and interpretations to my client

Note. Accounts for 16.75% of the variance.

Table 6 shows the items with significant loadings on rotated Component 2. "I patiently interact with my client" appears to be Don's commentary with these items. Most are personal items reflecting Don's evaluative criteria from unrotated Component 1. The common theme connecting the therapy skills on this component is an emphasis on restraint and contact in Don's immediate dealings with his client.

Table 6

Don: Item Loadings on Rotated Component 2

"I patiently interact with my client"

Loading	Item
0.89	22. I proceed at my client's pace
0.85	23. I do not impose premature intellectual conclusions on my client
0.73	30. I feel my client's depression and confusion without distancing myself
0.69	26. I instruct my client about people when appropriate
0.64	21. I refrain from acknowledging my client before he's struggled with expressing himself
0.59	8. I can see things from my client's viewpoint
0.58	16. I am comfortable and familiar with my client's cultural and social background
0.50	25. I break into my client's rhythm when appropriate
0.48	29. I listen behind my client's words rather than to the content
0.46	28. I do not have a need to take care of my client

-.38	12. My client is cooperative with my therapeutic strategies

Note. Accounts for 16.60% of the variance.

The items with significant loadings on rotated Component 3 are listed in Table 7. With this grouping of items, Don's commentary appears to be "I am optimistic about therapy with my client". The connection between these therapy skills is a positive attitude toward the future, and being at ease in therapy.

For rotated component 4, the items with significant loadings are shown in Table 8. Here, Don appears to be making the commentary "I have a strategic perspective on therapy with this client". Component 4 groups therapy skills concerning being able to look at therapy in a way which per-

Table 7

Don: Item Loadings on Rotated Component 3

"I am optimistic about therapy with my client"

Loading	Item
0.89	3. I can help this client with the defined problem
0.89	4. I believe that this client has potential for change
0.76	1. I am comfortable with this client's defined problem
0.65	15. My responses to this client flow easily and naturally
0.64	12. My client is cooperative with my therapeutic strategies
0.59	6. I have control over the therapeutic process with this client
0.38	31. I do not feel exhausted, helpless and confused about my client

Note. Accounts for 14.2% of the variance.

mitted Don to know what to do. A weak contrast is provided by the barely significant negative loading for Item 9. The content of Item 9 suggests that on occasions when Don did not have a strategic perspective, he may have been identifying too closely with his client.

Rotated Component 5 appears to represent Don's commentary "I use strategies to intervene in the therapy interaction". The items with significant loadings are shown in Table 9. These therapy skills convey a mode of specific actions to disrupt the client's immediate activity, in contrast to the facilitative approach to the client represented by Don's commentary on component 3 "I patiently interact with my client."

Table 8

Don: Item Loadings on Rotated Component 4

"I have a strategic perspective on therapy with this client"

Loading	Item
0.72	28. I do not have a need to take care of my client
0.58	14. I see order in this therapy relationship
0.56	20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies
0.53	11. I use specific strategies to direct the flow of therapy
0.49	8. I can see things from my client's viewpoint
0.49	19. I can formulate strategies of action for therapy from the systemic interpretation of the case
0.40	27. I make appropriate connections and interpretations to my client

-0.38 9. I identify with this client

Note. Accounts for 9.5% of variance.

Table 9

Don: Item Loadings on Rotated Component 5

"I use strategies to intervene in the therapy interaction"

Loading	Item
0.85	24. I check out how my client perceives our ongoing transactions
0.58	26. I instruct my client about people when appropriate
0.53	25. I break into my client's rhythm when appropriate
0.44	15. My responses to this client flow easily and naturally

Note. Accounts for 8.2% of the variance.

Process

To summarize thus far, the patterns of items with significant loadings on components were interpreted as Don's commentaries on how he perceived himself, his client, their therapy interaction, and the overall therapy process. The most general commentary was "I am doing well in therapy". This global evaluation was split into two more specific commentaries--"I understand the therapy process" and "I patiently interact with my client". Beyond this, finer dimensions of Don's perceptions were conveyed by the commentaries "I am optimistic about therapy with my client" and "I have a strategic perspective on therapy with this client". Most specific of all was the commentary "I intervene in the therapy interaction with my client". Together these commentaries make up the major dimensions of Don's perception of therapy and supervision over the semester.

The occasions with significant loadings on each of the five rotated components indicate when over the semester the corresponding commentary was most salient, by affirmation or negation, and when it was not salient. An overview of the process of therapy and supervision is afforded when the occasions and the corresponding salient commentaries are arranged in sequence. Table 10 shows the occasions, Don's salient commentaries, and concomitant events from therapy and supervision. Table 10 is an attempt to depict the total supervisory process across occasions. The left column con-

tains the occasions on which the PQ was administered: Before and After Therapy sessions, and Before and After Supervision sessions. The PQ will usually have been administered on 2 occasions (Before and After) for each session. The middle column represents positive and negative loadings for the corresponding occasion on the first unrotated component (global evaluation). The column on the right lists the specific commentaries, as determined by significant occasion loadings on the five rotated components, which were salient for that occasion.

An example of how Table 10 is read can be provided by Occasions 2 and 3. On these occasions, Don responded to the PQ Before and After one therapy session. For Occasion 2, the "NO!!!!" in the centre column represents the loading (-.83) of Occasion 2 on unrotated Component 1 (global evaluation). The commentaries "I do not understand." and "I do not intervene!" in the right column represent the significant loadings of -.46 and -.54 for Occasion 2 on rotated components 1 and 5 respectively. Next, some events of the therapy session following the PQ administration on Occasion 2 are listed in the left column. Occasion 3 represents Don's responses to the PQ After this same therapy session. The remaining occasions, events and commentaries can be read similarly. For some sessions, the PQ was administered on only one occasion (Occasions 1, 5, 27), or not at all (therapy session following Occasion 12). The reasons for these

omissions are indicated in the appropriate place in the Events column of Table 10.

Table 10 raises a number of interesting points about Don's perception of the process of therapy and supervision over the semester. The semester began with Don's commentary "I do not intervene". This may not be a negative perception, because the supervisor advised the student therapists to spend the first few sessions listening to the client's story. It is notable however that there is no combination of "I do/do not intervene" and "I patiently interact/I do not" on any one occasion. Don confirmed that these were separate modes, stating that not intervening was "waiting for something to happen" while patiently interacting was "positive engagement" with his client.

The large change to more positive evaluation After therapy on Occasion 22 which was evident in Figure 1 and on the occasion loadings on unrotated Component 1 is clarified by this sequential analysis. After confronting his client during this therapy session, on Occasion 22 Don perceived himself as understanding and strongly intervening for the first time. His strongly positive global evaluations of therapy with his client began at this time and continued until the end of the semester. However, Don's commentaries on occasions preceding Occasion 22 give the impression that it was less a sudden breakthrough than the culmination of an ongoing sequence. On Occasion 16, Don perceived himself as

Table 10

Don: Process of Psychotherapy and Supervision

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Don's Commentaries

(4 previous therapy sessions, 3 previous supervision sessions)		

Before Therapy (Don forgot to sort PQ cards) Summary session. Don "first time I saw him relaxed...but he still spoke in monotone".		
1. After Therapy	NO!!! ^a	I do not intervene!!!! ^b

2. Before Therapy	NO!!!!	I do not understand. I do not intervene!
Don played therapy tape to client. Client "I do sound dull", feedback was "scary". Don "but friendly warmth when he left".		
3. After Therapy	(no)	I patiently interact!!

4. Before Supervision	NO!!!	I do not understand. I am optimistic!!! I do not intervene.
Supervisor "you won't get change in how client talks for a long time", emphasizes early deficits.		
5. After Supervision	(yes?)	I am optimistic. I have a strategic perspective.

Before Therapy (Don forgot to sort PQ cards) Client says the world is bad, wants to hide.		
6. After Therapy	no	I do not intervene!

7. Before Therapy	--	I patiently interact.
Client talks of loneliness, depression, mistrust.		
8. After Therapy	NO	I do not have a strategic perspective!

(table continues)

Table 10 (continued)

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Don's Commentaries
9. Before Supervision	no	I patiently interact. I do not have a strategic perspective.
Don said therapy is "draining, overwhelming". Supervisor "process over time, can't push"		
10. After Supervision	--	--
11. Before Therapy	(no?)	I patiently interact.
Client was tired, came late, left early. Don "nothing much going on".		
12. After Therapy	(no?)	I do not understand.
Therapy session (Don forgot to sort PQ cards) Client talked of physical concerns, social status.		
13. Before Supervision	(no)	I patiently interact. I am optimistic.
Don said client avoids, can't accept his praise. Supervisor "focus of therapy with him is not to look for solutions but steps along the way".		
14. After Supervision	(no)	I patiently interact.
15. Before Therapy	--	I patiently interact.
Client talked of how life is bad, fear, mistrust. Don disagreed, offered alternatives but client was tired.		
16. After Therapy	--	I intervene.
17. Before Supervision	(no)	I do not patiently interact! I am optimistic!
Don "now I have more rapport". Supervisor "client controls by not doing--could be ready to act in six months".		
18. After Supervision	--	I do not understand! I do not patiently interact! I am not optimistic!

(table continues)

Table 10 (continued)

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Don's Commentaries
19. Before Therapy Don thought "client was most pessimistic, self-defeating of all...found it really depressing".	no	I do not understand!!
20. After Therapy	(no?)	I do not understand! I am not optimistic!
21. Before Therapy Client "I've built up my confi- dence...I'm stronger", hints at anger toward Don. Don "I'll tell you what it's been like for me. You've seemed so pessimistic. I have trouble knowing what to do to help you get out of it. You reacted so negatively to what I say." Client "I have been pessimistic. I'm alone. I became antisocial for survival."	(yes?)	I do not understand! I am not optimistic!
22. After Therapy	YES!!!!	I understand. I intervene!!
23. Before Supervision Don "at one point I was fed up". Supervisor "biggest prognosis for length of therapy--develop- mental deficits". Don "in terms of therapeutic goals, getting him through is great".	YES!!!	I have a strategic perspective. I intervene!!
24. After Supervision	YES!!!	I understand. I have a strategic perspective. I intervene.
25. Before Therapy Last therapy session. Don did not discuss it in supervision.	YES!!!!	I understand. I am not optimistic. I intervene!
26. After Therapy	YES!!!!	I understand!!

(table continues)

Table 10 (continued)

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Don's Commentaries
27. Before Supervision	YES!!	I understand!!! I do not patiently interact.
Supervision session was cancelled, rescheduled.		
28. Before Supervision	YES!!!!	I understand!! I do not patiently interact.
Don summed up therapy with his client. Supervisor commented.		
29. After Supervision	YES!!!	I understand!! I do not patiently interact!

Note. "I am doing well" represents occasion loadings on the global evaluative component (unrotated Component 1).
^aPositive occasion loadings on unrotated Component 1 are indicated as follows: (yes?) $\geq .10$; (yes) $\geq .20$; yes $\geq .30$; YES $\geq .40$. The corresponding absolute values of negative loadings are indicated by "NO/no". Loadings $\geq .50$ are indicated as in ^b.
^bFor occasions with significant loadings on rotated components, the salient commentaries are included. The absolute value of the loadings is indicated as follows: $\cdot \geq |.40|$; $! \geq |.50|$; $!! \geq |.60|$; $!!! \geq |.70|$; $!!!! \geq |.80|$.

intervening, although less strongly than on Occasion 22. From this point on, his commentaries no longer indicate a patient interaction. Instead, they suggest a more impatient, pessimistic, perplexed attitude between Occasions 16 and 21. It appears then that Don was building toward the intervention in therapy which constituted a breakthrough for him and his client.

It is interesting to compare the two therapy interventions preceding Occasion 16 and Occasion 22. In the first, Don disagreed with the client about his pessimistic attitude toward life and his distrust of other people, and the client responded with fatigue. In the second, Don addressed these same issues with his client but from the context of their own relationship. In this event, the client responded by confirming and elaborating (although not perhaps changing).

The effects of supervision on Don's perceptionsⁿ are suggested by comparing the commentaries salient Before and After supervision sessions. It appears that one consistent effect of supervision for the first half of the semester was to tone down Don's optimism. The supervisor's comments in those sessions about the client's early deficits, not pushing the client, and looking for small steps may fit in with Don's decreased optimism After supervision sessions. However after Don's breakthrough therapy session (Occasions 21 and 22), the effect of supervision appears to be one of confirming and reinforcing Don's more positive commentaries.

Therapist Eva

Eva was a single female Ph.D. student in her mid-twenties. She had taken three therapy courses and seen eight therapy clients prior to the systems course. She described her psychotherapeutic orientation as "systems".

Eva's client was a single female in her early twenties from a middle class background. She was in her second year of a social sciences B.A. program. She had had previous therapy when in her late teens. The client voluntarily sought psychotherapy at the university clinic to "be more independent".

The PQ for Eva had 31 items; the 20 category items (Items 1 to 20), and 11 personal items (Items 21 to 31) elicited from Eva. Eva's calibration of the 93 PQ statements was satisfactory after 7 of the category statements were recalibrated. She had 9 therapy sessions and 4 supervision sessions before the first administration of the PQ. Eva completed the PQ on 33 occasions; Before and After 8 supervision and 8 therapy sessions, and Before 1 therapy session which the client did not attend. With 31 items administered on 33 occasions, Eva had a total of 1023 response patterns of which only 4 (0.3%) were inconsistent. This is significantly less inconsistent than would be expected on the basis of random responding at the .001 level. Thus, Eva's data appear to be reliable. (See Appendix E for Eva's personal items, calibration scores, occasions of PQ administration,

raw PQ scores, and calculations for significance of consistency of responding.)

Description of Eva's Evaluation of Therapy Skills

The overall mean PQ score was 1.85. This indicates that Eva evaluated her therapy skill, on average, to be on the positive level of the 4-point scale near to goal. The range of item means was 1.73 (1.00 - 2.73), showing that she used only the more positive half of the scale to evaluate each therapy skill over all occasions.

The mean PQ scores for all occasions are graphed in Figure 2. The range of occasions means was 0.65 (1.48 - 2.13) which, as shown in Figure 2, is quite restricted. Eva used a narrow range of the scale between goal and improvement to evaluate the average of all therapy skills on each occasion.

Figure 2 shows that Eva evaluated her therapy skills moderately positively at the beginning of the semester. There is a regular "heartbeat" pattern from Occasions 5 to 19, in which moderate positive changes in evaluation within some therapy sessions (i.e. from Before to After the session) were followed by moderate negative changes between sessions (i.e. from After a therapy session to Before the next session), and then followed by several occasions in which relatively no changes occurred. Then within one supervision session, from Occasion 19 Before supervision to

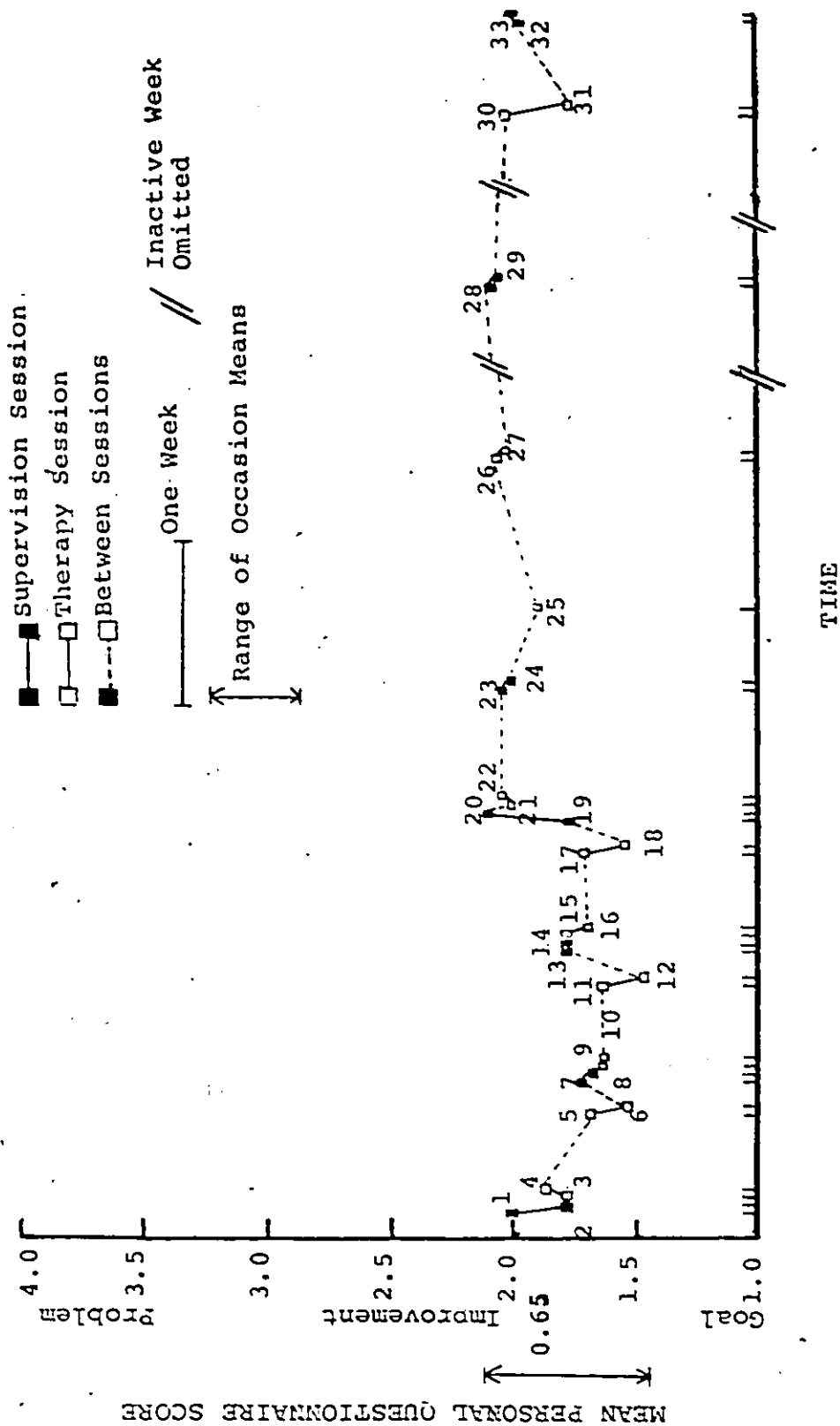


Figure 2. Eva: Mean Personal Questionnaire scores over occasions.

Occasion 20 After supervision, there was a moderate jump to the most negative evaluation level of the record. The degree of this jump is shown in the difference in the mean PQ score for Occasions 1 through 19 (1.73) and for Occasions 20 through 33 (2.01). Within the restricted range of occasion means, this relatively negative change is quite marked and is sustained for the rest of the record. Eva stated that during this supervision session she "became more realistic", realizing that the "client's difficulties with several people in her life" were "not all situational", but that the client herself was contributing to these difficulties. After this supervision session, there was relatively little change for several occasions. This was partly because the client became sick shortly after, and was unable to attend therapy for about 5 weeks after Occasion 25. After the last therapy session (Occasion 31) there was a moderate positive change in Eva's evaluation of her therapy skills. On the last two occasions (supervision), the mean PQ scores returned to the same moderate positive level as in the beginning of the semester.

The variance for occasions shows that the early sessions had more variance, and the sessions near the end had relatively less variance. The item variance showed that the 7 items with the most variance were personal items. This suggests that for Eva, the personal items were more sensitive to change than category items. Eva stated that the

items with the most variance "were the most important for me". Regarding the personal PQ items, she stated "I'm more sensitive to them--to being aware on that particular day, how they were". The three items with the most variance were concerned with practical in-session therapy behaviours, followed by about eight items concerned with affective reactions to the client. The items concerned with theoretical conceptualizing had the least variance, and thus changed the least over the semester. Two items (items 16 & 19) had no variance at all. (See Appendix E for the means and variance for Eva's items and occasions.)

Principal Components Analysis

The Principal Components Analysis for Eva yielded nine components with eigenvalues greater than 1.0 which accounted for 71% of the total variance. The first unrotated component and five rotated components will be presented.

Global evaluation—unrotated Component 1. Component 1 appears to represent Eva's global evaluation of therapy. The items with significant loadings are those which Eva used to make up the commentary "I am doing well in therapy". The items and occasions loading significantly on Component 1 are shown in Table 11.

Component 1 clearly differentiates between occasions when Eva perceived herself to be doing well in therapy and occasions when she did not. This is verified by comparing

Table 11

Eva: Loadings on Unrotated Component 1

"I am doing well in therapy with this client"

Loading	Item
0.76	27. In an individual session, I can pick up the process quickly
0.76	30. I do not get caught up in my feelings of irritation and frustration toward her
0.68	1. I am comfortable with this client's defined problem
0.64	3. I can help this client with the defined problem
0.59	9. I identify with this client
0.57	23. I am not intimidated by my client's confrontations
0.55	28. I can formulate concrete specific goals
0.53	22. I do not get sucked into my client's testing of me
0.50	10. On the whole, I am close to knowing my client
0.47	12. My client is cooperative with my therapeutic strategies
0.47	26. I have a clear overall picture of the process
0.47	8. I can see things from my client's viewpoint
0.46	25. I know when and how to keep the focus on our relationship
0.46	4. I believe that this client has potential for change
0.43	11. I use specific strategies to direct the flow of therapy
0.42	24. I know when to take a more active role and when not to
0.41	31. I do not feel responsible for the client's changing in a certain way
-0.42	17. I easily find examples from my therapy sessions to illustrate category questions and systems principles

Note. Items without significant loadings on this component were Items 2, 5, 6, 7, 13, 14, 15, 16, 18, 19, 20, 21 & 29.

(table continues)

Table 11 (continued)

Loading	Occasion	Mean PQ Score
0.76	6. After Therapy	1.52
0.65	18. After Therapy	1.55
0.64	12. After Therapy N.S.	1.48
0.60	9. Before Therapy	1.68
0.48	16. After Therapy	1.71
0.43	8. After Supervision	1.71
0.42	11. Before Therapy N.S.	1.68
0.40	10. After Therapy	1.68
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-.41	29. After Supervision	2.06
-.42	32. Before Supervision	1.97
-.46	33. After Supervision	2.00
-.47	23. Before Supervision	2.03
-.48	20. After Supervision	2.13
-.51	30. Before Therapy	2.03
-.51	21. Before Therapy	2.00
-.52	24. After Supervision	2.00
-.56	22. After Therapy	2.03
-.61	28. Before Supervision	2.10
-.67	26. Before Supervision	2.06
-.68	27. After Supervision	2.03

Note. Accounts for 19.45% of the variance.

N.S. = the client did not show for the therapy session.

the significant loadings on this component with the mean PQ scores for the corresponding occasions. The eight occasions with positive loadings have more positive (lower) mean PQ scores. These occasions (mostly therapy) occurred from after the beginning to the middle of the semester. Conversely, the twelve occasions with negative loadings on Component 1 have more negative mean PQ scores. The (mostly supervision) occasions occurred from the middle to the end of the semester. Again, the occasion loadings on the global evaluation component tend to mirror the configuration of mean PQ scores for occasions over the semester shown in Figure 2. This confirms the interpretation of Component 1 as representing Eva's commentary "I am doing well in therapy".

The content of the items with significant loadings on Component 1 indicates the criteria which Eva used to differentiate when she perceived herself to be doing well from when she did not. Component 1 includes 9 of Eva's 11 personal PQ items, indicating that she used most of the therapy skills which she identified herself as criteria for global evaluation. Of the 20 category items elicited by the supervisor, the 8 included on this component indicate that relationship and process skills were important for Eva in evaluating her therapy performance. The 12 category items concerning theoretical and conceptual therapy skills do not have significant loadings. Eva stated "when I feel more or less confident about the theory it doesn't seem to make that

much difference in what I do. So those aren't the things that I focus on." Only Item 17 has a negative loading, suggesting that at times when Eva did not perceive herself as doing well in therapy, she may have relied a bit more on theory. Eva agreed that it may be easier for her to find therapy examples when things are going badly.

Specific commentary—rotated components. After the global commentary "I am doing well in therapy" represented by the first unrotated component, the five rotated components can be interpreted as more specific commentaries which Eva used to perceive the therapy interaction. The first three rotated components appear to divide unrotated Component 1 into three more specific dimensions.

The items with significant loadings on rotated Component 1 are shown in Table 12. The pattern of items with positive loadings suggests the commentary "I interact fluidly with my client". These seven items all involve Eva interacting with her client. The content suggests a flowing mode of interacting without being entangled. The contrast provided by the negative loading of Item 14 suggests that at times when this fluid interaction was not present, Eva again may have resorted to a more conceptual viewpoint.

Table 13 shows the items with significant loadings on rotated Component 2. With this constellation of items, Eva's commentary appears to be "I know what to do in therapy with this client". The theme is an emphasis on timing of

Table 12

Eva: Loadings on Rotated Component 1

"I interact fluidly with my client"

Loading	Item
0.78	22. I do not get sucked into my client's testing of me
0.72	15. My responses to my client flow easily and naturally
0.70	12. On the whole, my client is cooperative with my therapeutic strategies
0.65	9. I identify with this client
0.53	1. I am comfortable with this client's defined problem
0.46	6. I have control over the therapeutic process with this client
0.44	30. I do not get caught up in my feelings of irritation and frustration toward her

-.58	14. I see order in this therapy relationship

Note. Accounts for 12.30% of the variance.

appropriate activity, and on making sense of her client and therapy. This commentary does have a more conceptual and theoretical slant, but with a definite pragmatic aim. It does not represent understanding for understanding's sake, but rather understanding for the purpose of knowing what and what not to do at what moment.

For rotated Component 3, the items with significant loadings are listed in Table 14. "I see what is happening in therapy" appears to be the commentary uniting the five items with positive loadings. The theme for Component 3 is of visualizing therapy from different vantage points, and of using the different viewpoints to focus transactions in therapy.

Table 13

Eva: Loadings on Rotated Component 2

"I know what to do in therapy with this client"

Loading	Item
0.82	24. I know when to take a more active role and when not to
0.71	10. On the whole, I am close to knowing my client
0.70	30. I do not get caught up in my feelings of irritation and frustration toward her
0.63	27. In an individual session, I can pick up the process quickly
0.55	3. I can help this client with the defined problem
0.45	14. I see order in this therapy relationship
0.41	20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies

Note. Accounts for 11.41% of the variance.

Table 14

Eva: Loadings on Rotated Component 3

"I see what is happening in therapy"

Loading	Item
0.82	26. I have a clear overall picture of the process
0.74	8. I can see things from my client's viewpoint
0.62	23. I am not intimidated by my client's confrontations
0.49	28. I can formulate concrete specific goals
0.48	25. I know when and how to keep the focus on our relationship

-.40	6. I have control over the therapeutic process with this client

Note. Accounts for 9.09% of the variance.

For rotated Component 4, the items with significant loadings are shown in Table 15. Eva's commentary here is bipolar, contrasting two modes of understanding her client-- a transactional mode and an objective mode. Thus "I understand my client either transactionally or objectively" represents the contrast of these two groups of items. The four items with positive loadings suggest a theme of refraining from immediate reactions to the client in favour of a different level of transaction. Eva stated that she associated these items "with experience as a therapist". By way of contrast, the three items with negative loadings suggest a more objective, structured approach to understanding her client. Since these themes do not load on two separate components, it suggests that these two modes of understanding are incompatible at any one time, or are alternately operative in Eva's understanding. Eva commented that all items from both poles of this component are "the things that (the supervisor) can do that I can't do", while items from rotated Components 1 and 2 were more closely related to herself as a therapist.

Table 16 lists the items with significant loadings on rotated Component 5. This grouping of items is represented by the commentary "I believe my client can change". The theme concerns actual and future change in the client, and Eva's belief in her ability to be instrumental in bringing about change in the client.

Table 15

Eva: Loadings on Rotated Component 4

"I understand my client transactionally" versus
 "I understand my client objectively"

Loading	Item
0.86	29. I can see how the way my client is now relates to her past
0.66	31. I do not feel responsible for the client's changing in a certain way
0.60	21. I do not get caught up in my client's abstractions
0.42	1. I am comfortable with this client's defined problem
-0.39	10. On the whole, I am close to knowing my client
-0.46	5. I have a clearly formulated overall plan for therapy with this client
-0.48	2. I can clearly conceptualize this client's problem from multiple perspectives

Note. Accounts for 8.78% of the variance.

Table 16

Eva: Loadings on Rotated Component 5

"I believe my client can change"

Loading	Item
0.79	13. I see expected changes occurring in my client
0.73	4. I believe that this client has potential for change
0.49	3. I can help this client with the defined problem
0.44	25. I know when and how to keep the focus on our relationship
0.41	1. I am comfortable with this client's defined problem

Note. Accounts for 7.20% of the variance.

Process

Eva's most global commentary "I am doing well in therapy", emerged from unrotated Component 1. It was split into three more specific commentaries by the first three rotated components; "I interact fluidly with my client", "I know what to do in therapy", and "I see what is happening in therapy". Together these three commentaries specifically define different motifs in Eva's concept of doing well in therapy. The fourth rotated component represented a more complex, bipolar commentary "I understand my client transactionally, or I understand her objectively". The final commentary was "I believe my client can change". Together, these commentaries make up the major ways in which Eva perceived therapy with this client over the semester.

As with the results for Don, the occasions with significant loadings on each of the components indicate at what points in therapy and supervision over the semester each of the commentaries was salient for Eva. Table 17 is an attempt at integrating the commentaries, occasions, and concomitant events in Eva's therapy and supervision over time.

In Table 17, the decisive moment in the semester for change in Eva's perceptions of the therapy interaction appears to have been in the supervision session between Occasions 19 and 20. This was also seen in Figure 2 as a moderate jump to a more negative level of evaluation in the mean PQ scores for occasions. In this supervision session, Eva

Table 17

Eva: Process of Psychotherapy and Supervision

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Eva's Commentaries

(9 previous therapy sessions, 4 previous supervision sessions)		

1. Before Supervision	(no) ^a	I do not know what to do! ^b I do not believe she can change!
Client missed previous session. Supervisor said client was testing Eva about controversial issues.		
2. After Supervision	(yes?)	I understand transactionally. I do not believe she can change.

3. Before Therapy	--	I understand objectively!
Client talked of controversy, family problems, panic attack.		
4. After Therapy	(no?)	I interact fluidly! I understand transactionally. I believe she can change!!

5. Before Therapy	(yes)	I interact fluidly!
Client talked of insomnia. Eva asked about her thoughts while trying to sleep, but "she wouldn't tell me".		
6. After Therapy	YES!!!	I interact fluidly. I know what to do. I see what is happening!!

7. Before Supervision	yes	--
Eva asked "what kinds of things should be happening in therapy? Supervisor "reflect on contra- dictions, implications, not content".		
8. After Supervision	YES	I interact fluidly.

(table continues)

Table 17 (continued)

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Eva's Commentaries
9. Before Therapy Client talked about sexuality. Eva "she gives in or is really aggressive". Eva tried strategy which flopped. Client "do you ever get fed up"?	YES!!	I know what to do.
10. After Therapy	YES	I see what is happening!! I do not believe she can change.
11. Before Therapy Client missed therapy session without calling.	YES	I know what to do!!!
12. After Therapy	YES!!	I know what to do!!!!
13. Before Supervision Supervisor "we're not here to be nice to people but to shake them up--have to interfere with her style".	{yes} --	
14. After Supervision	{yes?} --	
15. Before Therapy Client talked of difficulties in relating to several people in her life, embarrassed about missing therapy. Eva did not press her.	{yes?} --	
16. After Therapy	YES --	
17. Before Therapy Client "feeling the worst", a boyfriend treated her badly, "a lot of other things going badly".	yes --	
18. After Therapy	YES!!	I know what to do. I understand objectively.

(table continues)

Table 17 (continued)

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Eva's Commentaries
19. Before Supervision Supervisor "why did you let her off the hook about missing? Her problems with people are percep- tual not behavioural." Eva "she doesn't realize her impact on people. Supervisor "bring it into your relationship". Eva "became more realistic".	yes	I understand objectively!!
20. After Supervision	NO	I do not see what is happening.
Client cancelled therapy, called to say she was sick.		
21. Before Therapy	NO!	I understand transactionally!
Client talked about health, sexuality, problems with men.		
22. After Therapy	NO!	I do not know what to do.
23. Before Supervision	NO	I do not see what is happening.
Eva "she's starting to see her part in things". Supervisor "all or none, no sense of context".		
24. After Supervision	NO!	I do not interact fluidly.
25. Before Therapy	(no)	I do not interact fluidly.
Client did not come--phoned to say she was sick.		
26. Before Supervision	NO!!	I do not know what to do!
Summary session. Eva "I was alert to the wrong things, I didn't step back to get perspec- tive". Supervisor "you can't talk people into experience. Go back and listen to yourself on tape."		
27. After Supervision	NO!!	I do not know what to do!

(table continues)

Table 17 (continued)

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Eva's Commentaries
28. Before Supervision	NO!!	I do not interact fluidly. I do not know what to do. I believe she can change.
Client still sick.		
29. After Supervision	NO	I do not interact fluidly.
30. Before Therapy	NO!	I do not know what to do.
Last session. Eva "client behaved with me in a way which likely caused her problems with others, and I finally confronted her on it!"		
31. After Therapy	(yes?)	I do not interact fluidly.
32. Before Supervision	NO	I do not interact fluidly!!
Last supervision--summary.		
33. After Supervision	NO	I do not interact fluidly!!

Note. "I am doing well" represents occasion loadings on the global evaluative component (unrotated Component 1).
 a. Positive occasion loadings on unrotated Component 1 are indicated as follows; (yes?) $\geq .10$; (yes) $\geq .20$; yes $\geq .30$; YES $\geq .40$. The corresponding absolute values of negative loadings are indicated by "NO/no". Loadings $\geq .50$ are indicated as in 6.
 b. For occasions with significant loadings on rotated components, the salient commentaries are included. The absolute value of the loadings is indicated as follows; $\geq .40$; ! $\geq .50$; !! $\geq .60$; !!! $\geq .70$; !!!! $\geq .80$.

stated that she "became more realistic" about her client's own part in her difficulties with relating to other people. However the sequence of Eva's commentaries on the occasions preceding Occasion 20 suggests that this may have been a more gradual process than was shown by the mean PQ scores in Figure 2. For several occasions beginning with Occasion 13, Eva's global evaluation, although still positive, was only weakly positive relative to the level of Occasions 6 to 12. From Occasions 13 to 17, there were no salient specific commentaries, suggesting that this was a neutral period or a period of reevaluation. After therapy on Occasion 18, Eva's global evaluation of her therapy skills was again strongly positive, but only temporarily. Thus this sequence preceding the supervision session when Eva became more realistic with her client may represent a time when she was becoming more and more receptive to messages of realism from the supervisor.

The more negative global evaluation of Eva's therapy interaction from Occasion 20 until the end of the semester may be more reflective of her reframing what had happened up to that point than of a decline in her therapy skills. This is exemplified by Occasions 26 and 27, Before and After a later supervision session. During this session, Eva was summing up the therapy interaction to that point. The salient commentary "I do not know what to do!" then appears to reflect her evaluation of what she had already done rather

than what she was doing at the time. Certainly this was influenced by her client's five week illness, which lessened the opportunity for Eva to integrate her more realistic approach into the therapy sessions. The beginning of such an integration is evident however in the last therapy session between Occasions 30 and 31. This was the first time Eva had seen her client for five weeks, and she confronted her client rather than fluidly interacting with her. The effect of this is evident in Eva's tentative "(yes?)" response to the global commentary "I am doing well in therapy with this client" on Occasion 31 relative to the response of "NO!" Before that same therapy session. It is also interesting to note that Eva ~~confronted~~ her client on the way the client interacted with her, which had been the supervisor's suggestion in the session after Occasion 19.

Therapist Fay

Fay was a single female Ph.D. student in her mid-twenties. She had taken two therapy courses and had done a variety of types of therapy with approximately 15 therapy clients prior to the systems course. She described her psychotherapeutic orientation as "eclectic".

Fay's client was a separated female in her mid-twenties from a middle class Chinese-Canadian background. She was in her third year of a social sciences B.A. program, and already had a B.A. in another field. Her only previous therapy had been marriage counseling. She voluntarily sought psychotherapy at the university clinic for "marriage difficulties and figuring out short-term relationships".

The PQ for Fay had 30 items; the 20 category items (Items 1 to 20), and 10 personal items (Items 21 to 30) elicited from Fay. Fay's calibration of the PQ statements was satisfactory after 1 of the category statements was recalibrated. Fay had 7 therapy sessions and 3 supervision sessions before the first administration of the PQ. Fay completed the PQ on 34 occasions; Before and After 8 supervision and 8 therapy sessions, and Before 2 therapy sessions which the client did not attend. With 30 items administered on 34 occasions, Fay had a total of 1020 response patterns of which only 16 (1.6%) were inconsistent. This is significantly less inconsistent than would be expected on the basis of random responding at the .001 level. Thus,

Fay's data appear to be reliable. (See Appendix P for Fay's personal items, calibration scores, occasions of PQ administration, raw PQ scores, and calculations for significance of consistency of responding.)

Description of Fay's Evaluation of Therapy Skills

The overall mean PQ score was 2.37, which is just below the midpoint of the 4-point scale. This indicates that Fay evaluated her therapy skills, on average, to be on the improvement level of the scale. The range of item means was 2.62 (from 1.39 to 4.00), which is broad, showing that Fay evaluated individual therapy skills across almost the entire scale range.

The mean PQ scores for all occasions are graphed in Figure 3. The range of occasions means was 0.60 (from 2.03 to 2.63) which, as shown in Figure 3, is quite restricted. Fay used a narrow range around the midpoint of the scale to evaluate the average of all the therapy skills on each occasion.

Figure 3 shows that Fay evaluated her therapy skills moderately positively at the beginning of the semester, with no marked changes from one occasion to the next. There was a gradual trend to relatively more negative evaluation toward the middle of the semester, when there were more drastic changes within and between sessions. Toward the end of the semester, changes from one occasion to the next became

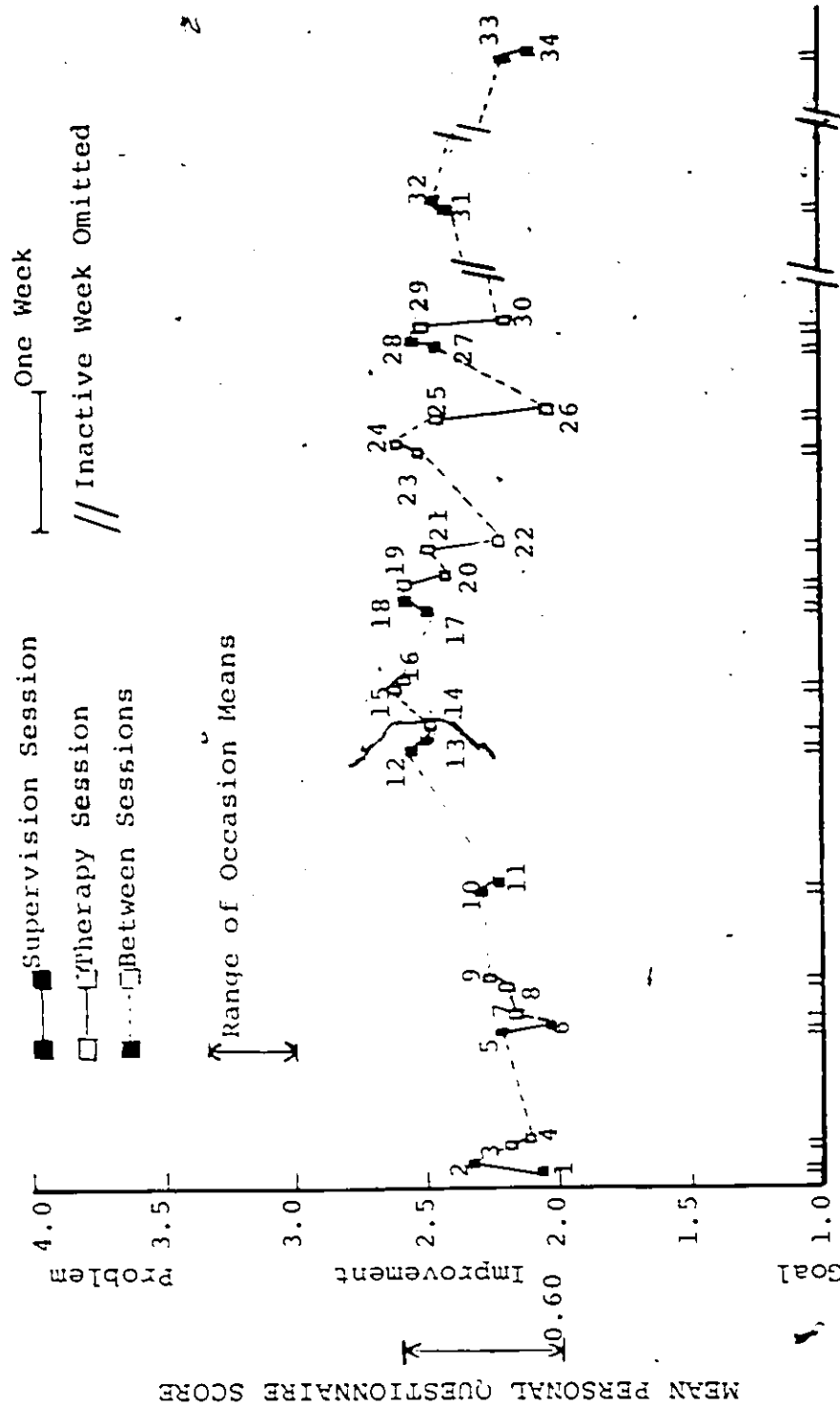


Figure 3. Fay: Mean Personal Questionnaire scores over occasions.

less drastic again and Fay's evaluation of her therapy skills returned to the same moderate positive level as at the beginning. Throughout the record, there was a tendency for positive change within sessions (i.e. from Before to After the same session) and for negative change between sessions (i.e. from After one session to Before the next session). Fay commented that she "would feel better in sessions. I was harder on myself between sessions--realizing she's not going to change. I remember becoming more frustrated with her as time went on. She wouldn't listen to what I was saying. Toward the end I accepted that too."

The five occasions with the most variance were all After supervision or therapy sessions, suggesting that Fay discriminated more between different therapy skills when evaluating herself After sessions than Before sessions. This may relate to Fay's tendency to rate herself more positively After sessions. Perhaps she had more uniform and relatively negative expectations of her therapy skills Before sessions, and became more skill-specific and positive in her evaluations After sessions. The last occasion and Occasion 2 were the two occasions with the most variance. Fay stated that at the end "certain items would no longer apply--that's why you'd get more extreme (ratings). The first session too--I didn't know the client well enough."

The variance for items showed that Fay's personal PQ items were distributed equally with the category items above

and below the mean item variance. This suggests that for Fay, personal items were no more sensitive to change than were category items. The three items with the most variance were all concerned with interactive process in therapy sessions. Fay stated "I remember (items) 24 and 15 changed. At the beginning I would jump in more. You learn more in therapy about how you both interact" (as time goes on). One item (item 22 - I don't feel responsible for what happens to this client) had no variance at all, and a mean of 4.0 (problem). Fay stated that she "always did" feel responsible for the client. (See Appendix F for the means and variance for Fay's items and occasions.)

Principal Components Analysis

The Principal Components Analysis for Fay yielded 10 components with eigenvalues greater than 1.0 which accounted for 77% of the total variance. First the unrotated Component 1 will be presented, followed by the five interpretable rotated components.

Global evaluation—unrotated Component 1. Component 1 appears to represent Fay's global evaluation of therapy, as indicated by the items with significant loadings. These items, shown in Table 18, were the ones most strongly used by Fay to evaluate her therapy interactions as generally positive or negative. Thus "I am doing well in therapy" is a commentary representing the message of this group of items

for Fay. The items and occasions loading significantly on Component 1 are shown in Table 18.

Unrotated Component 1 is confirmed as a global evaluation dimension by the pattern of occasions with significant loadings, also shown in Table 18. The occasions with positive loadings also have more positive (lower) mean PQ scores. These occasions occurred near the beginning and the end of therapy. The occasions with negative loadings have more negative (higher) mean PQ scores, and occurred in the middle of Fay's therapy with this client. This pattern of changes in Fay's global evaluation of her therapy skills repeats the pattern found in Figure 3. Accordingly, it is clear that the unrotated Component 1 distinguishes between times when Fay emphasized the commentary "I am doing well in therapy with this client" and times when she emphasized that she was not doing well.

The content of the items with significant loadings on unrotated Component 1 provides an indication of the criteria which Fay used in defining what doing well in therapy meant to her. There are only 5 of Fay's 10 personal items, indicating that half of the therapy skills which she identified herself were not related to her global evaluation. The 8 category items with positive loadings suggest that theoretical and conceptual skills were predominately used to decide when "I am doing well", as well as communication skills and being able to help the client. Communicational and concep-

Table 18

Fay: Loadings on Unrotated Component 1

"I am doing well in therapy with this client"

Loading	Item
0.90	20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies
0.75	28. I do not rephrase my questions unnecessarily
0.74	19. I can interpret what happens in therapy according to systems principles
0.73	15. My responses to this client flow easily and naturally
0.65	17. I easily find examples from my therapy sessions to illustrate category questions and systems principles
0.60	14. I see order in this therapy relationship
0.58	29. I have no difficulty formulating questions
0.58	24. I do not close off the flow of our interactions prematurely
0.58	19. I can formulate strategies of action for therapy from the systemic interpretation of the case
0.56	2. I can clearly conceptualize this client's problem from multiple perspectives
0.54	26. I apply her constructs as they come up
0.43	30. I understand her idea of fate
0.40	3. I can help this client with the defined problem

-.44	9. I can see things from my client's viewpoint

Loading	Occasion	Mean PQ Score
0.68	34. After Supervision	2.10
0.65	6. After Supervision	2.03
0.65	33. After Supervision	2.17
0.50	4. After Therapy	2.13
0.44	3. Before Therapy	2.20

-.41	23. Before Therapy	2.53
-.45	27. After Supervision	2.47
-.49	17. After Supervision	2.50
-.50	24. After Therapy	2.63
-.59	16. After Therapy	2.60
-.60	13. After Supervision	2.53
-.64	18. After Supervision	2.60
-.64	19. Before Therapy	2.60
-.68	15. Before Therapy	2.63

Note. Accounts for 19.44% of the variance.

tual skills also constitute the content of the 5 personal items on this component. Only Item 8 has a significant negative loading, suggesting that Fay was more able to see her client's viewpoint at times when she perceived herself as not doing well in therapy.

Since only 14 of Fay's 30 PQ items have significant loadings on unrotated Component 1, over half of the items were not used as criteria for global evaluation. Category items from the Goals, Contract, Relationship, Techniques and Context categories were not represented on this component.

Specific commentary--rotated components. The global commentary "I am doing well in therapy with this client" of unrotated Component 1 is split into three more specific commentaries by the first three rotated components. Rotated components 4 and 5 appear to represent specific commentaries which are not directly related to Fay's positive/negative evaluation of therapy.

Table 19 shows the items with significant loadings on rotated Component 1. "I easily understand my client" appears to be Fay's commentary with this grouping of items. The theme of the six items with positive loadings is one of Fay's readily understanding her client and what to say to her client. Item 13 has a negative loading, and suggests that Fay does not see changes in her client at times when she readily understands her.

Table 19

Fay: Loadings on Rotated Component 1

"I easily understand my client"

Loading	Item
0.76	2. I can clearly conceptualize this client's problem from multiple perspectives
0.74	29. I have no difficulty formulating questions
0.64	15. My responses to my client flow easily and naturally
0.51	26. I apply her constructs as they come up
0.50	17. I easily find examples from my therapy sessions to illustrate category questions and systems principles
0.40	20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies

-.60	13. I see expected changes occurring in my client

Note. Accounts for 10.58% of the variance.

The items with significant loadings on rotated Component 2 are listed in Table 20. This set of items has the theme of relating systems theory to therapy, and of understanding therapy in a conceptual, objective manner. Accordingly "I relate systems theory to therapy" is the commentary for Component 2. The negative loading of Item 8 on this component is much higher than on unrotated Component 1 (global evaluation), and provides a more likely interpretation. Perhaps Fay is less able to see things from her client's viewpoint when she is conceiving of therapy in a theoretical way.

Table 21 shows the items with significant loadings on rotated Component 3. Fay's commentary here appears to be "I

Table 20

Pay: Loadings on Rotated Component 2

"I relate systems theory to therapy"

Loading	Item
0.74	19. I can formulate strategies of action for therapy from the systemic interpretation of the case
0.73	18. I can interpret what happens in therapy according to systems principles
0.51	20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies
0.50	14. I see order in this therapy relationship
-0.30	3. I can see things from my client's viewpoint

Note. Accounts for 9.86% of the variance.

am direct with my client". The theme of these six items is one of a straightforward and decisive manner of facing her client and her client's problem.

Table 21

Pay: Loadings on Potated Component 3

"I am direct with my client"

Loading	Item
0.85	3. I can help this client with the defined problem
0.67	30. I understand her idea of fate
0.61	23. I am able to keep appropriate eye contact with her
0.51	15. My responses to my client flow easily and naturally
0.43	28. I do not rephrase my questions unnecessarily
0.42	20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies

Note. Accounts for 9.14% of the variance.

The items with significant loadings on rotated Component 4 are shown in Table 22. "I have an effect on my client" appears to be the commentary uniting these three items. The theme is one of a complementary relationship between Fay and her client, with Fay being in control of what happens and her client cooperating and changing. Fay said that this grouping of items meant "I seem to be satisfied at the present".

Table 22

Fay: Loadings on Rotated Component 4

"I have an effect on my client"

Loading	Item
0.88	12. On the whole, my client is cooperative with my therapeutic strategies
0.81	6. I have control over the therapeutic process with this client
0.58	13. I see expected changes occurring in my client

Note. Accounts for 8.28% of the variance.

Table 23 shows the items with significant loadings on rotated Component 5. Fay's commentary with this set of items appears to be "I am not unsettled in the therapy session". This commentary is stated in the negative form because the two items with the highest positive loadings indicate a theme of the absence of a frustrated or flustered state, rather than the presence of anything different. The negative loading of Item 27 may indicate that Fay was more

unsettled at times when she asked her client open-ended questions.

Table 23

Fay: Loadings on Rotated Component 5

"I am not unsettled in the therapy session"

Loading	Item
0.87	21. I am not frustrated with this client
0.47	28. I do not rephrase my questions unnecessarily
0.42	17. I easily find examples from my therapy sessions to illustrate category questions and systems principles

-.66	27. I use open-ended questions

Note. Accounts for 7.76% of the variance.

Process

The pattern of Fay's responses to the PQ were divided into several themes or commentaries. The most global commentary "I am doing well in therapy" of unrotated Component 1, was split in turn into three specific commentaries: "I easily understand my client", "I relate systems theory to therapy", and "I am direct with my client". More specific themes were represented by the commentaries "I have an effect on my client" and "I am not unsettled in the therapy session".

As with the results for Don and Eva, the occasion loadings on the components for Fay indicate at what times over the semester each of these commentaries was salient. Table

24 is an attempt at integrating the occasions of PQ administration, the corresponding salient commentaries, and concomitant events in therapy and supervision over time for Fay.

Table 24 raises some interesting points about the process of changes in Fay's evaluation of her therapy skills over the semester. The supervision session between Occasions 1 and 2 was the only time when the commentary "I am/I am not direct with my client" was salient. During this session, Fay brought up her client's apathy and irresponsibility in dealing with an intimate issue. The salient commentary "I am not direct" Before this session and "I am direct!!" After suggest that the supervisor's suggestion to comment to the client on her not taking advice or responsibility rather than to offer advice constituted a valuable strategy for Fay. The results of this transaction can be seen in the next therapy session when Fay confronted the client over this issue. Fay's global evaluation of her therapy skills became more positive, and the commentary "I easily understand!" was even stronger After this therapy session at Occasion 4 than After supervision at Occasion 2.

It is of interest to note here that at Occasion 10, when Fay spontaneously commented that the PQ items missed that she "did not have a sense of the session", her global evaluation was neutral and there were no salient commentaries. It appears that Fay's lack of sense of the previous therapy session after her client stated her intent to see

Table 24

Fay: Process of Psychotherapy and Supervision

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Fay's Commentaries

(7 previous therapy sessions, 3 previous supervision sessions)		
1. Before Supervision	yes ^a	I relate theory to therapy. ^b I am not direct.
Client had talked blandly of dealing irresponsibly with an intimate issue. Supervisor "try active participation in her world, say 'you're not going to do anything anybody suggests'".		
2. After Supervision	yes	I easily understand. I am direct!! I am unsettled.

3. Before Therapy	YES	--
Client indecisive about marriage or boyfriend. Fay confronted her about intimate issue. Client said if she was responsible, Fay and others would no longer be concerned.		
4. After Therapy	YES!	I easily understand!

5. Before Supervision	(yes)	--
Supervisor "I would say 'I bet you don't listen to anybody, not even yourself. Must be confusing'."		
6. After Supervision	YES!!	I easily understand.

7. Before Therapy	yes	I easily understand!!
Client cancelled because she slept in. Fay rescheduled.		

(table continues)

Table 24 (continued)

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Pay's Commentaries
8. Before Therapy	(yes)	I easily understand. I am unsettled.
Client's husband wanted divorce. Pay "she gave me the runaround about her feelings". Client told Pay she had appointment with another therapist (male).		
9. After Therapy	--	I relate theory to therapy.

10. Before Supervision	--	--
Pay said PQ items missed that she "did not have a sense of the session". Supervisor "lifestyle repetition of her marriage". Pay "took it personally". Supervisor "it's her general style, doesn't make decisions".		
11. After Supervision	--	I have an effect on client.

No therapy session. Client went out of town to visit husband.		

12. Before Supervision	--	I easily understand.
Pay presented client's Role Rep. Supervisor "no differentiation, totally naive". Pay remembered later that client had unusual Role Rep.		
13. After Supervision	NO!!	I do not easily understand.

14. Before Therapy	no	I do not have an effect. I am unsettled.
Client sent note to cancel session due to schoolwork.		

(table continues)

Table 24 (continued)

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Pay's Commentaries
15. Before Therapy	NO!!	I do not easily understand. I do not relate theory to therapy.
Client was disappointed in other therapist. Pay told her to come next week with a decision on who she would see. Client discussed visit with husband. Pay discussed issue of other therapist. ✓		
16. After Therapy	NO!	I do not relate theory to therapy. I have an effect on client.
17. Before Supervision	NO	--
Supervisor "other therapist is unethical. You're really nice to her--have to be honest." Pay "frustrated".		
18. After Supervision	NO!!	I do not relate theory to therapy.
19. Before Therapy	NO!!	I do not easily understand.
Client undecided about which therapist to see. Pay "I want you to come to a decision in this hour". Client decided on Pay.		
20. After Therapy	no	I do not easily understand!
21. Before Therapy	(no?)	I do not relate theory to therapy.
Pay gave client feedback on Role Rep. Client said she told other therapist and he understood.		
22. After Therapy	(no?)	I do not easily understand!! I have an effect on client.

(table continues)

Table 24 (continued)

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Pay's Commentaries

No supervision as Pay was sick.		

23. Before Therapy	NO	I do not easily understand! I do not have an effect.
(no information available)		
24. After Therapy	NO!	I do not relate theory to therapy.

25. Before Therapy	(no?)	I easily understand.
Fay completed feedback of Role Rep to client.		
26. After Therapy	yes	I relate theory to therapy. I have an effect on client!

27. Before Supervision	NO	I do not easily understand!
Fay discussed client's choice. Supervisor "client's problem-- dishonesty, doesn't realize. I would have asked her the simi- larities between present situa- tion and situation with husband."		
28. After Supervision	(no)	I do not have an effect.

29. Before Therapy	no	--
Last session. Client tearful "I guess your support has meant a lot to me and now it's going to be withdrawn".		
30. After Therapy	(yes?)	I am not unsettled!!

31. Before Supervision	(no)	--
Summary session.		
32. After Supervision	(yes)	I am not unsettled!

(table continues)

Table 24 (continued)

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Pay's Commentaries
33. Before Supervision	YES!!	I am not unsettled.
Pay talked of terminating with client. Supervisor "She had no symptoms (except) she's not very happy. Goal is not for her to decide about her marriage--cure is to release her from constraints."		
34. After Supervision	YES!!	I am not unsettled!!

Note. "I am doing well" represents occasion loadings on the global evaluative component (unrotated Component 1).
^aPositive occasion loadings on unrotated Component 1 are indicated as follows; (yes?) $\geq .10$; (yes) $\geq .20$; yes $\geq .30$; YES $\geq .40$. The corresponding absolute values of negative loadings are indicated by "NO/no". Loadings $\geq .50$ are indicated as in ^b.
^bFor occasions with significant loadings on rotated components, the salient commentaries are included. The absolute value of the loadings is indicated as follows; . $\geq |-.40|$; ! $\geq |-.50|$; !! $\geq |-.60|$; !!! $\geq |-.70|$; !!!! $\geq |-.80|$.
^cRole Rep = Role Repertory Grid Technique (Kelly, 1955) which student therapists used to assess and further understand their clients. See "The Therapy Course" in Method section for more information.

another therapist was picked up by the PQ, since the absence of global evaluation and commentary (as well as the lack of global evaluation on Occasions 9, 11, and 12) is markedly different from the rest of the occasions for the semester.

The other therapist appears to have been the decisive issue in this process. After Fay's client informed her about her intent to see the other therapist, the immediate period of neutrality was followed by a sequence of occasions on which there was more negative global evaluation. This issue led Fay to realize that she had an effect on her client, perhaps through the supervisor's comments that her client's defection may have been because Fay had been bringing up issues which the client did not want to face. Fay resolved the issue decisively in a therapy session at Occasions 19 and 20. After this there was less negative global evaluation which culminated in a return to positive global evaluation by the end of the semester.

Therapist Bob

Bob was a married male M.A. student in his early thirties. Prior to the systems course, he had taken two therapy courses and seen two therapy clients. He described his psychotherapeutic orientation as "I want to be pragmatic, but I am more interpretive and analytic".

Bob's client was a single female in her late twenties enrolled in a M.A. program. She had had previous counseling, and had voluntarily sought psychotherapy at the university clinic for reasons of "relationship and self-esteem".

The PQ for Bob had 30 items; the 20 category items (Items 1 to 20), and 10 personal items (Items 21 to 30) elicited from Bob. Bob calibrated the category items twice. The initial calibration was not satisfactory for most items, apparently because Bob had considered possible extreme cases for the item statements. Bob's second calibration of the 60 category statements, under instructions to take the statements at face value, was satisfactory after 4 of the category statements were recalibrated. The calibration was satisfactory for all 30 personal statements. (See Appendix H for Bob's personal items and calibration scores.)

Bob completed the PQ on 15 occasions; Before and After 5 supervision sessions and 2 therapy sessions, and Before 1 therapy session which his client did not attend. (The low number of therapy sessions was due to the client missing and cancelling sessions, and finally terminating therapy.) With

30 items administered on 15 occasions, Bob had a total of 450 response patterns, of which only 3 (0.7%) were inconsistent. This is significantly less inconsistent than would be expected on the basis of random responding at the .001 level. Thus, Bob's data appear to be reliable. However, caution was used in the interpretation of the data due to the low number of therapy occasions on which the PQ was administered. (See Appendix H for Bob's occasions of PQ administration, raw PQ scores, and calculations for significance of consistency of responding.)

Description of Bob's Evaluation of Therapy Skills

The overall mean PQ score was 1.54 on the 4-point scale. This indicates that Bob evaluated his therapy skills, on average, to be on the most positive portion of the skill, near to goal. The range of item means was 1.53 (from 1.07 to 2.60), which indicates that Bob used the more positive half of the scale range to evaluate each therapy skill over all occasions.

The mean PQ scores for all occasions are graphed in Figure 4. The range of occasion means was 0.74 (from 1.16 to 1.90) which, as can be seen in Figure 4, is fairly narrow. Bob used the positive third of the scale to evaluate the average of all the therapy skills on each occasion. Figure 4 also shows that Bob evaluated himself fairly positively at the beginning, then became increasingly positive

in his evaluation of his therapy skills over the 15 occasions.

The variance for occasions showed generally that occasions near the beginning and the end of the record had more variance, while the middle occasions had less variance. The item variance showed that 3 of the 10 personal items had more than the mean amount of variance. This suggests that for Bob, the personal items were more sensitive to change than the category items. (See Appendix H for the means and variance for Bob's items and occasions).

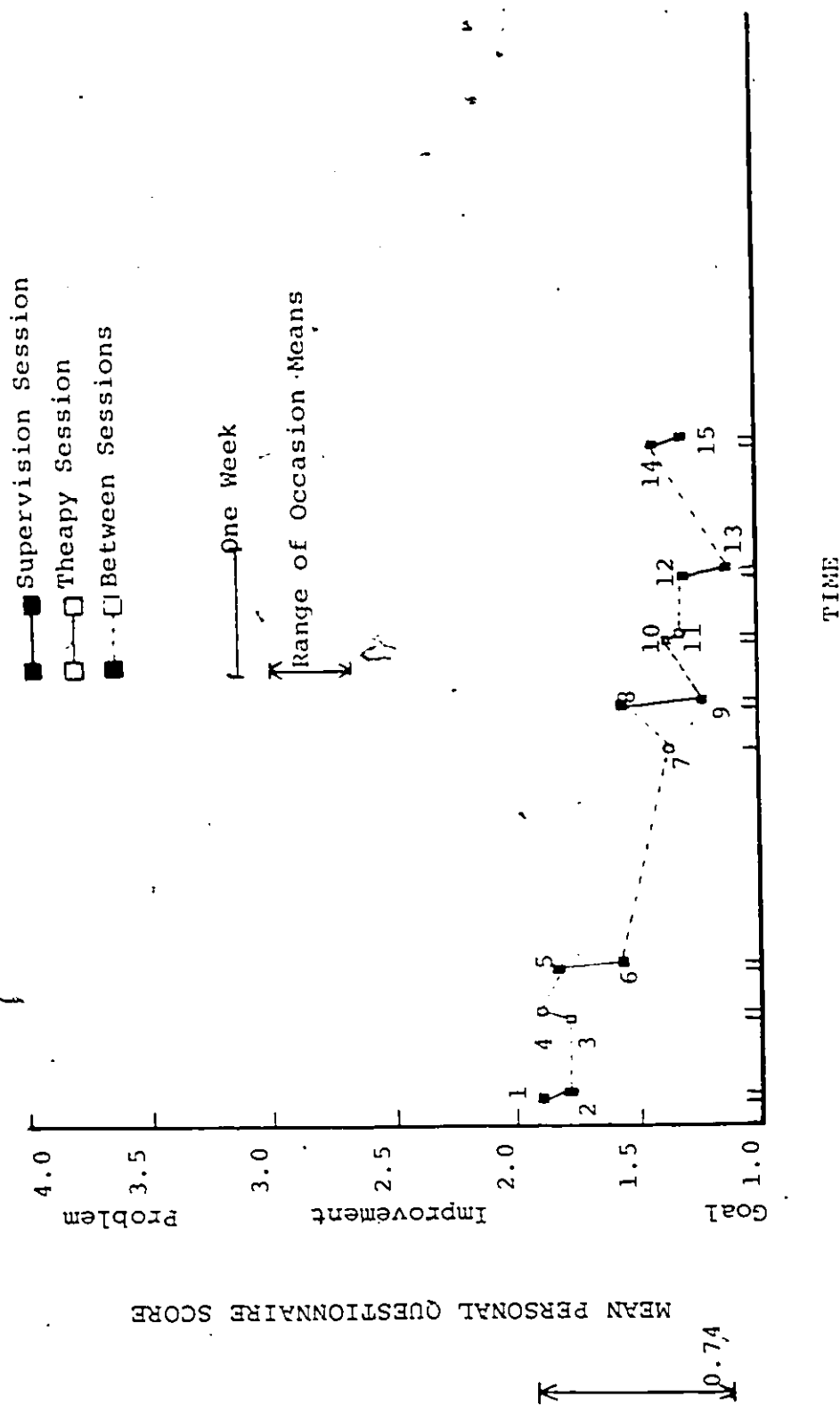


Figure 4. Bob: Mean Personal Questionnaire scores over occasions.

Principal Components Analysis

The Principal Components Analysis for Bob yielded 5 components accounting for 74% of the total variance. However it should be noted that Bob's PQ contained 30 items and he responded to it on only 15 occasions. Thus the size of the sample of occasions is considerably smaller than the number of variables, which is generally considered insufficient for Principal Components Analysis, as "correlation coefficients tend to be less reliable when estimated from smaller samples" (Tabachnik & Fidell, 1983, p. 379). Accordingly the results for Bob are presented but the interpretations should be viewed with caution. The first unrotated component and the five rotated components are considered in turn.

Global evaluation—unrotated Component 1. Component 1 appears to represent Bob's global evaluation of therapy, as indicated by the items with significant loadings. These 21 items, shown in Table 25, were used as criteria to make up the global commentary "I am doing well in therapy with this client". The items and occasions loading significantly on Component 1 are shown in Table 25.

The interpretation of unrotated Component 1 as a dimension of global evaluation is supported by the occasions with significant loadings, also shown in Table 25. The occasions with positive loadings also have more positive (lower) mean PQ scores. These occasions of PQ administration occurred in

Table 25

Bob's Loadings on Unrotated Component 1

"I am doing well in therapy with this client"

Loading	Item
0.89	18. I can interpret what happens in therapy according to systems principles
0.88	15. My responses to this client flow easily and naturally
0.95	30. I have close emotional contact with my client
0.82	28. I slow the pace of our interaction
0.81	2. I can clearly conceptualize this client's problem from multiple perspectives
0.73	17. I easily find examples from my therapy sessions to illustrate category questions and systems principles
0.72	11. I use specific strategies to direct the flow of therapy
0.71	19. I can formulate strategies of action for therapy from the systemic interpretation of the case
0.71	20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies
0.63	5. I have a clearly formulated overall plan for therapy with this client
0.61	14. I see order in this therapy relationship
0.57	13. I see expected changes occurring in my client
0.55	8. I can see things from my client's viewpoint
0.55	12. My client is cooperative with my therapeutic strategies
0.52	25. I focus on one specific experience at a time
0.51	9. I identify with this client
0.46	6. I have control over the therapeutic process with this client
0.46	16. I am comfortable and familiar with my client's cultural and social background
0.42	21. My statements are not abstract
0.39	27. I pull together the main theme of the session

Note. Items without significant loadings on this component were Items 1, 3, 4, 7, 10, 22, 23, 24, 26, 27 & 29.

(table continues)

Table 25 (continued)

Loading	Occasion	Mean PQ Score
0.83	13. After Supervision	1.16
0.70	12. Before Supervision	1.30
0.62	9. After Supervision	1.27
0.53	14. Before Supervision	1.42
0.53	15. After Supervision	1.30
0.45	7. Before Therapy N.S.	1.37
0.43	11. After Therapy	1.33
<hr/>		
-.39	2. After Supervision	1.80
-.46	1. Before Supervision	1.90
-.68	5. Before Supervision	1.87
-.73	4. After Therapy	1.90

Note. Accounts for 30.46% of the variance. The size of the loadings may be overestimated due to the small sample of occasions of PQ administration.

the middle and end of Bob's therapy with his client. The occasions with negative loadings have relatively negative (higher) mean PQ scores, and occurred at the beginning of therapy. Thus the pattern of occasion loadings on Component 1 duplicates the pattern of change in mean PQ scores over time which was seen in Figure 4.

The content of items with significant loadings on unrotated Component 1 indicates the criteria which Bob used to define what doing well in therapy meant to him. Only 4 of the 10 personal items, but 15 of the 20 category items were included on this component. This indicates that Bob used most of the supervisor's criteria but few of his own as reference points for global evaluation of therapy. The content of the 4 personal items consists of specific in-session therapist behaviours. Since most of the category items were included, it may be more informative to regard the 5 category items which were not. The content of all 5 items referred to the client; being comfortable and optimistic about the client's problem, and knowing the client and her expectations. For Bob, these therapy skills do not appear to be related to whether or not he is doing well in therapy.

Specific commentary--rotated components. The first unrotated component, "I am doing well in therapy with this client" was split into two more specific commentaries by the first two rotated components. Rotated components 3, 4, and 5 appear to represent specific commentaries which are not

directly related to Bob's global positive/negative evaluation of therapy.

For rotated Component 1, the items with significant loadings are shown in Table 26. "I am generally competent with this client" is the commentary representing this set of items. The content of these 11 items consists of integrative and synthesizing therapy skills. These are the types of general skills which are not used at one particular moment, but are more long term in scope.

Table 26

Bob: Loadings on Rotated Component 1

"I am generally competent with this client"

Loading	Item
0.87	5. I have a clearly formulated overall plan for therapy with this client
0.84	20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies
0.79	9. I identify with this client
0.74	12. On the whole, my client is cooperative with my therapeutic strategies
0.73	8. I can see things from my client's viewpoint
0.68	15. My responses to my client flow easily and naturally
0.68	17. I easily find examples from my therapy sessions to illustrate category questions and systems principles
0.67	28. I slow the pace of our interaction
0.66	30. I have close emotional contact with my client
0.57	2. I can clearly conceptualize this client's problem from multiple perspectives
0.50	18. I can interpret what happens in therapy according to systems principles

Note. Accounts for 21.1% of the variance. The size of the loadings may be overestimated due to the small sample of occasions of PQ administration.

The items with significant loadings on rotated Component 2 are shown in Table 27. Bob's commentary with this grouping of items appears to be "I am active in therapy through understanding". The theme of the 11 items is one of Bob being active in therapy sessions, and of his activity emerging out of his theoretical understanding of therapy and his client.

Table 27

Bob: Loadings on Rotated Component 2

"I am active in therapy through understanding"

Loading	Item
0.91	19. I can formulate strategies of action for therapy from the systemic interpretation of the case
0.76	11. I use specific strategies to direct the flow of therapy
0.75	14. I see order in this therapy relationship
0.73	24. I use a variety of short open-ended questions
0.70	22. My statements are formulated in action terms
0.68	18. I can interpret what happens in therapy according to systems principles
0.68	10. On the whole, I am close to knowing my client
0.60	28. I slow the pace of our interaction
0.59	30. I have close emotional contact with my client
0.52	2. I can clearly conceptualize this client's problem from multiple perspectives
0.67	27. I pull together the main theme of the session
0.46	15. My responses to my client flow easily and naturally

Note. Accounts for 18.45% of the variance. The size of the loadings may be overestimated due to the small sample of occasions of PQ administration.

Table 28 shows the items with significant loadings on rotated Component 3. "I have a concrete focus in therapy"

appears to be a commentary which summarizes these six items. The content of the items suggests a structured, practical approach to what Bob does and looks for in a therapy session.

Table 28

Bob: Loadings on Rotated Component 3

"I have a concrete focus in therapy"

Loading	Item
0.86	29. I can plan for the session and implement it
0.79	21. My statements are not abstract
0.78	26. I call her attention to our transactions
0.73	25. I focus on one specific experience at a time
0.64	13. I see expected changes occurring in my client
0.43	7. I know what this client expects from me and from therapy

Note. Accounts for 13.89% of the variance. The size of the loadings may be overestimated due to the small sample of occasions of PQ administration.

The items with significant loadings on rotated Component 4 are listed in Table 29. Bob's commentary with this set of items appears to be "I am confident about the direction of therapy". The item content indicates a sense of control over what happens, and a feeling of assurance at having expectations confirmed.

Table 30 shows the items with significant loadings on rotated Component 5. Bob's commentary with these 3 items appears to be "I can contend with my client's issues". The items indicate an attitude of being able to deal with the client's issues emotionally, thematically and in therapy.

Table 29

Bob: Loadings on Rotated Component 4

"I am confident about the direction of therapy"

Loading	Item
0.90	6. I have control over the therapeutic process with this client
0.90	16. I am comfortable and familiar with my client's cultural and social background
0.60	13. I see expected changes occurring in my client
0.57	7. I know what this client expects from me and from therapy
0.53	17. I easily find examples from my therapy sessions to illustrate the category questions and systems principles

Note. Accounts for 12.31% of the variance. The size of the loadings may be overestimated due to the small sample of occasions of PQ administration.

Table 30

Bob: Loadings on Rotated Component 5

"I can contend with my client's issues"

Loading	Item
0.96	1. I am comfortable with this client's defined problem
0.96	4. I believe that this client has potential for change
0.40	27. I pull together the main theme of the session

Note. Accounts for 8.27% of the variance. The size of the loadings may be overestimated due to the small sample of occasions of PQ administration.

Process

The principal components for Bob's PQ items were interpreted as commentaries or themes representing ways in which he perceived the therapy interaction over the semester. The

most global commentary, "I am doing well in therapy", emerged as the first unrotated component. It was split into two more specific commentaries; "I am generally competent with this client" and "I am active through understanding", by the first two rotated components. The remaining three rotated components were interpreted by the commentaries "I have a concrete focus in therapy", "I am confident about the direction of therapy", and "I can contend with my client's issues".

The occasions with significant loadings on the corresponding components indicate when over the semester each of the commentaries was salient. Table 31 is an attempt at integrating Bob's commentaries, occasions of PQ administration, and concomitant events from therapy and supervision.

Table 31 shows that Bob began the semester with more negative global evaluation of his therapy skills and became more positive as time went on. In this process the decisive issue appears to have been the client's motivation for therapy and not attending sessions. Supervision appears to have had a consistent positive effect on Bob's global evaluation, which was either less negative or more positive After every supervision session than Before.

An interesting sequence of changes can be seen in the last two supervision sessions. The most positive global evaluations of the record occurred at Occasions 12 and 13 in the supervision session after Bob's client abruptly termi-

Table 31.

Bob: Process of Psychotherapy and Supervision

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Bob's Commentaries
----- (6 previous therapy sessions, 6 previous supervision sessions) -----		
1. Before Supervision	NO ^a	I am not generally competent!!! ^b I do not have a concrete focus.
Bob "client interrupting, need to be more forceful, slow her down". Supervisor "it's not speed, it's her pauses". Bob "she brings in so many things, no focus". Supervisor "jump in to another level--comment on many levels. She can't get closure."		
2. After Supervision	no	I am not generally competent! I am not active thru understanding! I do not have a concrete focus!

3. Before Therapy	no	I am not generally competent!!!
Client "I wonder how productive sessions are". Bob "I really wonder where I'm going from here". Client talked of control issues in relationships with men and exboyfriend.		
4. After Therapy	NO!!!	I am not generally competent. I am not active thru understanding. I have a concrete focus!#

(table continues)

Table 31 (continued)

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Bob's Commentaries
5. Before Supervision Bob "there were thoughts about termination". Supervisor "she needs to redefine why she's in therapy". Bob "only 4 more sessions". Supervisor "clarify about termination and give her some feedback".	NO!!	I am not confident about direction!!!!
6. After Supervision	(no)	I have a concrete focus.
Client was out of town so no therapy or supervision session.		
7. Before Therapy Client did not come or call.	YES	I am active thru understanding.
8. Before Supervision	(no?)	I am not generally competent. I am active thru understanding!!
Bob "wonder if she lost motivation?" Supervisor "I'd call her, not punitive but inquisitive tack". Bob said clients at the clinic "don't keep coming. You try to hang onto them for experience." Supervisor "people come crisis-oriented. We have idealized patient in mind."		
9. After Supervision	YES!!	I am generally competent!
10. Before Therapy	(yes?) --	
Client "forgot--wouldn't help to call you", talked about exboyfriend getting married. At end, she talked of traumatic past incident. Bob "it clicked. I said it must have been hard for you". Client "yes--sensitive. Whole relationship (with boyfriend) was a waste." Bob "only two more sessions", but client terminated.		
11. After Therapy	YES	I am generally competent!! I am not active thru understanding.

(table continues)

Table 31 (continued)

Occasion: Events in Therapy and Supervision	"I am doing well"?	Narrative Sequence of Bob's Commentaries
12. Before Supervision	YES!!!	I am generally competent. I do not have a concrete focus. I am confident about the direction.
Bob talked of not confronting client about missing. Supervisor "what did you want to say to her?" Bob "I was waiting for you!" Supervisor "she gave you a diversion". At end, Bob brought up client terminating--"I was astonished!" Supervisor "no closure".		
13. After Supervision	YES!!!!	I am generally competent!!! I can contend with client's issues.
14. Before Supervision	YES!	I am generally competent. I can not contend with client's issues!!!
Summary session. Bob talked about what he would have done differently. Supervisor advised philosophical attitude. Bob "can't do in 5-6 sessions. If we were going to continue could get down to essential issues" e.g. traumatic issue "she mentioned last minute of last session".		
15. After Supervision	YES!	I am active thru understanding.

Note. "I am doing well" represents occasion loadings on the global evaluative component (unrotated Component 1).
^aPositive occasion loadings on unrotated Component 1 are indicated as follows; (yes?) $\geq .10$; (yes) $\geq .20$; yes $\geq .30$; YES $\geq .40$. The corresponding absolute values of negative loadings are indicated by "NO/no". Loadings $\geq .50$ are indicated as in ^b.
^cFor occasions with significant loadings on rotated components, the salient commentaries are included. The absolute value of the loadings is indicated as follows; $\cdot \geq |.40|$; $! \geq |.50|$; $!! \geq |.60|$; $!!! \geq |.70|$; $!!!! \geq |.80|$; $!!!!!! \geq |.90|$.

nated. Occasion 13 was also the only time when the commentary "I can contend with the client's issues" was salient. The effect of reframing is suggested in the final supervision session at Occasions 14 and 15. At these times, Bob's moderately positive global evaluation may represent a more realistic viewpoint than the overwhelmingly positive evaluations of the previous supervision session. There is evidence for this in the events of the final session, when Bob was discussing what he had learned from therapy from this client and how he would go about it differently. At Occasion 14, the salient commentary "I can not contend with the client's issues!!" may reflect his final comments about not being able to deal with the traumatic issue which the client mentioned just before terminating. Again this appears more realistic than the commentary "I can contend with the client's issues" of Occasion 13. Together with "I am generally competent", the commentaries of Occasion 14 suggest a more differentiated self-evaluation. There is not the same all-or-none emphatic positive evaluation of the previous supervision session. Bob's final commentary on Occasion 15, "I am active through understanding", together with his moderately positive global evaluation indicate that he may have ended the semester with some closure.

Global Evaluation of Therapy--Don, Eva, Fay and Bob

The first unrotated components were similar in certain respects for the four student therapists presented thus far. Component 1 accounted for a sizeable portion of the variance, included half or more of the PQ items, and differentiated between occasions when the mean PQ scores were positive and when they were negative relative to each subject's range of occasion means. For Don, Eva, Fay, and Bob, the first unrotated component could be clearly interpreted as a global evaluation dimension represented by the commentary "I am doing well in therapy with this client". Accordingly it is of interest to compare how each student therapist defined global evaluation for herself. Although the personal PQ items were different for each subject and are not directly comparable, the 20 category items generated by the supervisor were constant. Thus the subjects' criteria for global evaluation can be compared in terms of the loadings of the 20 category items on the first unrotated component. Table 32 shows the category items with significant loadings on the first unrotated component for Don, Eva, Fay and Bob.

The pattern of item loadings on Component 1 is different for each student therapist. None of the 20 items had significant positive loadings for all four subjects. However all the items had a significant loading on the global evaluation dimension for at least one subject. This suggests that the 20 category items generated by the supervisor

7

Table 32

Comparison of Global Evaluation for Don, Eva, Pay and Bob

		Significant Loadings			
Category	Item	Don	Eva	Pay	Bob
<u>Problem</u>					
	1. comfortable with problem	-	.68	-	-
	2. conceptualize client's problem	.60	-	.56	.81
	3. can help client with problem	-	.64	.40	-
<u>Goals</u>					
	4. client potential for change	-	.46	-	-
	5. overall plan for therapy	.59	-	-	.63
<u>Contract</u>					
	6. control over therapy process	-	-	-	.46
	7. know what client expects	.45	-	-	-
<u>Relationship</u>					
	8. see from client's viewpoint	.76	.47	-.44	.55
	9. I identify with this client	-	.59	-	.46
	10. I am close to knowing client	.81	.50	-	-
<u>Techniques</u>					
	11. use specific strategies	-	.43	-	.72
	12. client is cooperative	-.52	.47	-	.55
<u>Process</u>					
	13. see expected client changes	-	-	-	.57
	14. I see order in therapy rel'n	.71	-	.60	.61
<u>Communication</u>					
	15. responses flow easily	-	-	.73	.88
<u>Context</u>					
	16. comfortable client cult/soc	.79	-	-	.46
<u>Metacategory</u>					
	17. find therapy examples	.52	-.42	.65	.73
	18. interpret therapy by systems	.78	-	.74	.89
	19. formulate action from system	.79	-	.58	.71
	20. integrate therapy, interpretation, systems and action	.79	-	.80	.71
Number of items		12	9	9	15
Percentage of variance		33%	19%	19%	30%

Note. The figures represent significant item loadings on the first unrotated component which was interpreted as a global evaluation dimension for these four subjects. Shortened wording of items is used for reasons of space. See Appendix C for complete wording of the 20 category items. Number of items = number of category items with significant loadings on Component 1. Percentage of variance = percentage of variance accounted for by this component.

The item loadings for Bob may be overestimated due to the small sample of occasions on which the PQ was administered.

were all useful as criteria for evaluation, yet lent enough diversity for unique patterns to emerge for each student therapist. In terms of the intent to develop multiple evaluation criteria or goals which were situation specific (Bordin, 1983; Lambert, 1984), it appears that the goals generated by the supervisor served this purpose for four very different student therapists.

The items which load on Component 1 for these four subjects are those which were used most strongly as criteria for global evaluation. The size of the item loadings indicates to what extent this was so. The items without significant loadings were not related to that subject's perceptions of whether her therapy skills were globally positive or negative on particular occasions. These items may or may not have had significant loadings on other components. Thus the lack of a significant loading for an item on unrotated Component 1 does not necessarily indicate that the skill was unimportant to a subject, only that it was not related to global evaluation. A negative loading for an item indicates that the subject tended to rate the item positively at times when she perceived her therapy skills to be globally negative, as well as the converse.

Thus the items with significant loadings on this component give an indication of what criteria each student therapist used to distinguish good therapy from bad therapy. Together with the items without significant loadings, they

make up a pattern of the therapy skills which were and were not the major focus for each student therapist. The patterns may be considered as suggestive of different therapeutic orientations, according to which skills were emphasized and which deemphasized.

Don's pattern of differential emphasis of the category items is suggestive of a psychoanalytic orientation to therapy. The overall pattern could be expressed as the following metacommentary. "Whether I perceive myself as doing well in therapy or not depends on whether or not I understand my client and therapy as it happens, and relate theory to therapy. Whether or not I'm optimistic about the client, at ease, 'or influencing what happens' in therapy has little bearing on my global evaluation." The negative emphasis on the client's cooperation would fit with an analytic perception of cooperation as a flight into health, and the value of working through resistance. Identifying with the client could be equated with countertransference, and thus deemphasized.

The differential pattern for Eva is suggestive of a client-centered orientation. The category items emphasized and deemphasized suggest the metacommentary: "Whether I perceive myself as doing well in therapy or not depends on whether I am comfortable with the client's problem, optimistic about therapy, have a good relationship with my client and techniques that are working. It does not depend on if I

understand conceptually or relate theory with therapy." The strong emphasis on the client's potential and warm therapeutic relationship, and deemphasis on structure and theory are consistent with the client-centered approach (Patterson, 1986).

For Fay, the pattern of significant and nonsignificant item loadings is less clear, but may indicate an eclectic approach to therapy. Before the data collection began, Fay described her therapeutic approach as eclectic. The metacommentary for this pattern of items may be "Whether I perceive myself to be doing well in therapy or not depends on if I understand therapy, relate theory to therapy, communicate well and believe I can be of help. It does not depend on if I am at ease, the state of my relationship with the client, or if I have established goals and a contract or use specific techniques." The emphasis on theory but not a specific type of relationship, goal, contract or technique is consistent with an eclectic approach to therapy (Patterson, 1976).

The pattern of items with and without significant loadings for Bob is suggestive of a rational-emotive therapeutic orientation. The metacommentary could be "Whether I perceive myself to be doing well in therapy or not depends on most therapy skills, but especially communicating well to my client, making sense of therapy, knowing what I am doing, and seeing results". The emphasis on the techniques, seeing

changes in the client, therapist control of the process, and theory are consistent with a rational-emotive approach (Patterson, 1976).

It is of interest to note that Items 17 to 20, the metacategory items concerning systems theory, all had significant loadings on unrotated Component 1 for Don, Fay, and Bob. For Eva, none of these four items had significant positive loadings and Item 17 had a negative loading. It would appear that these skills concerning relating systems theory to therapy were used as a block or not at all as criteria for global evaluation.

Therapist Cal

Cal was a married male Ph.D. student in his late twenties. Prior to the systems course, he had taken two therapy courses and seen approximately 25 therapy clients. Concurrently with the systems course, he was doing a 20 hour per week therapy internship. He described his psychotherapeutic orientation as "eclectic" with "behavioural tasks outside the sessions and analytic-dynamic interaction within sessions".

Cal's client was a male in his early thirties who was divorced and living common-law. He was employed full-time. He had a high school education with a few university courses. He had no previous therapy and had been referred to the clinic by a general practitioner for "anxiety".

The PQ for Cal had 30 items; the 20 category items (Items 1 to 20), and 10 personal items (Items 21 to 30) elicited from Cal. Therapist Cal's calibration of the 90 PQ statements was satisfactory after 11 category statements and 1 personal statement were recalibrated. (See Appendix I for Cal's personal items and calibration scores.)

Cal completed the PQ on 29 occasions; Before and After 8 therapy sessions and 6 supervision sessions, and Before 1 supervision session that was cancelled. With 30 PQ items completed on 29 occasions, Cal had a total of 870 response patterns, of which 44 (5.1%) were inconsistent. This is a very high percentage of inconsistencies which casts doubt on the reliability of Cal's data. (The percentage of inconsistencies for the four other student therapists ranged from 0.3% to 1.6% with an average of 0.9%.) For the 15 items with between 1 and 7 inconsistencies each, responding was significantly less inconsistent than would be expected on the basis of completely random responding at the .01 level. One item (item 27) had 8 inconsistencies, which is significantly less inconsistent than random responding at the .02 level though not at the .01 level. Thus, while less incon-

sistent than completely random responding, the responses to some items are somewhat unreliable. (See Appendix I for Cal's personal items, raw PQ scores, and calculations for significance of consistency of responding.)

In records of PQ responses with many inconsistencies, it is necessary to determine if the data are reliable enough to interpret and to determine the consistent pattern behind the inconsistencies (Phillips, 1976). In Cal's data, the inconsistencies were not evenly distributed, but clustered in patterns. Certain individual items had many inconsistencies (Items 27, 26, 22, 29, 15). More inconsistencies occurred in responses to personal items (10.3%) than to category items (2.4%). More inconsistencies occurred in response patterns with the less positive scores higher than 1 (scores of 2, 3, & 4 had 12.1% inconsistencies) than in response patterns with the most positive score of 1 (3.1% inconsistencies), although the latter predominated. More of the inconsistencies occurred on occasions Before and After therapy (68%) than supervision (32%). Thus, Cal's data are most inconsistent for (a) certain individual items, (b) personal items elicited from Cal, (c) response patterns with less positive scores, and (d) therapy occasions. The inconsistent response patterns do not appear to have resulted from a misunderstanding of the items, since Cal's calibration of the PQ statements indicated that he understood the statements in the manner intended. The patterns of unreli-

ability were considered in the interpretation of Cal's data. (See Appendix I for Cal's inconsistent responses broken down by patterns.)


Description of Cal's Evaluation of Therapy Skills

The overall mean PQ score was 1.27 on the 4-point scale. This indicates that Cal evaluated his therapy skills, on average, to be very near the goal level of the scale. The range of item means was 1.69 (from 1.00 to 2.69), which constitutes about half of the range of the scale. However, the range of item means is distorted because the mean PQ score for the four items with 5 to 8 inconsistent responses each (2.00) is much higher than that of items with 0 to 4 inconsistencies each (1.16). If only those items with fewer inconsistencies are considered, the range of item means was 0.62 (from 1.00 to 1.62). This indicates that Cal only reliably used one-fifth of the scale range at the most positive level to evaluate each therapy skill over all occasions.

The mean PQ scores for all occasions are graphed in Figure 5. The range of occasion means was 0.37 (from 1.10 to 1.47) which, as shown in Figure 5, is very restricted. There was little difference in the level of Cal's average evaluation of his therapy skill on different occasions. On all occasions Cal evaluated his therapy skills, on average, very positively. As Figure 5 shows, there were small chang-

es in evaluation from occasion to occasion, but no clearly evident trend or stages over the semester.

The variance for occasions showed that the occasions in the middle of the semester with slightly less positive mean PQ scores had the most variance. The variance for PQ items showed that all 8 of the items with more than the mean amount of variance were personal items. However, the four items with the most variance had 5 to 8 inconsistencies each, and together accounted for over 43% of the total item variance. Since the means scores are so close to the positive endpoint of the scale, the scores could vary in only one direction rather than above and below the mean. This tends to inflate the measures of variance. This indicates that much of the change in Cal's evaluation of his therapy skills resulted from the more unreliable items. (See Appendix I for the means and variance for Cal's items and occasions).



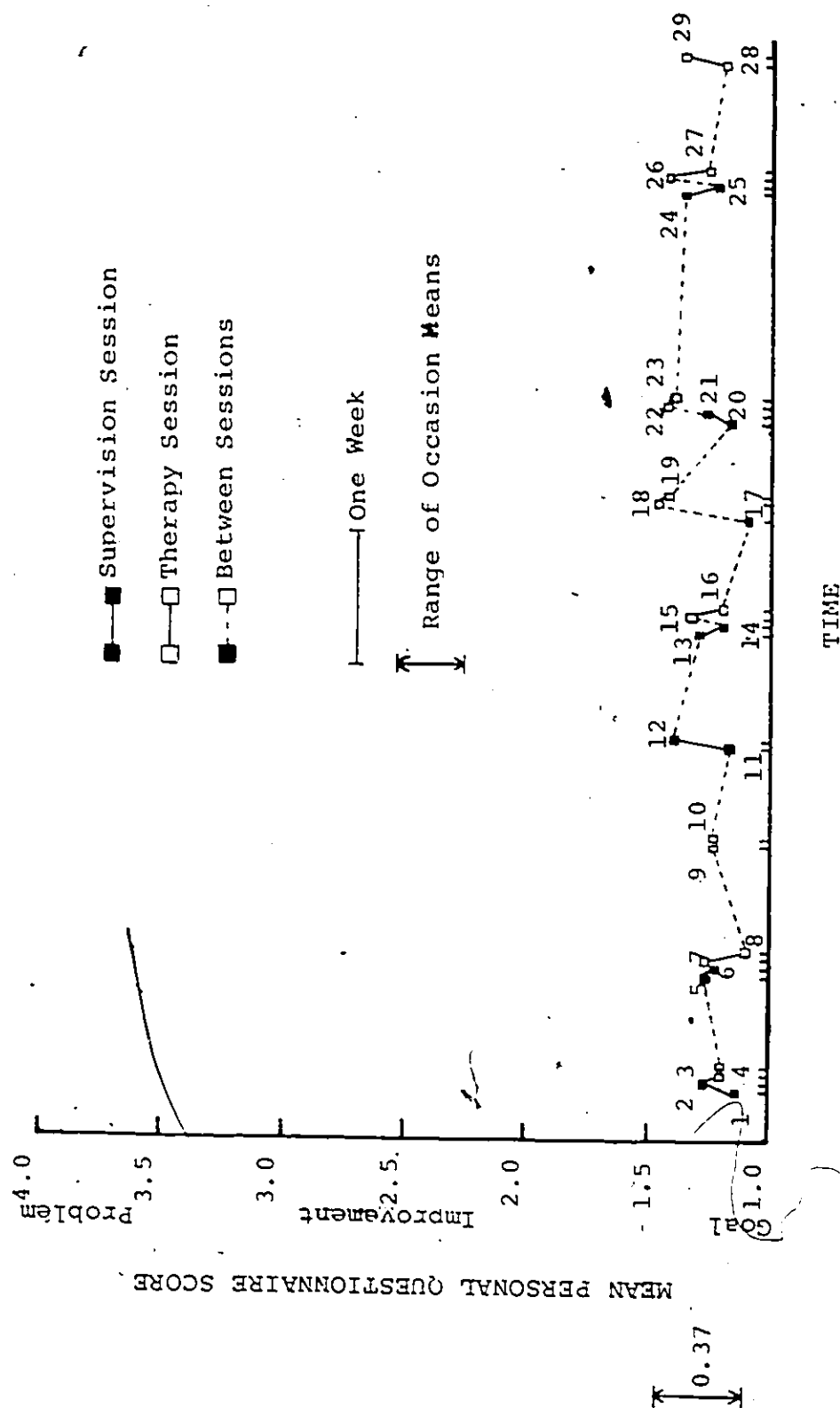


Figure 5. Cal: Mean Personal Questionnaire scores over occasions.

Principal Components Analysis

Tobachnick and Fidell (1983) advised that "if the observed variables are uncorrelated with one another, there is probably nothing to factor analyze. Inspect R for correlations in excess of .30 and, if none are found, reconsider use of FA" (p. 379, italics in the original). Accordingly, the item correlation matrix for Cal's PQ responses was inspected. It was found that 8.7% of the correlations were in excess of the absolute value of .30. This is a low percentage, scarcely more than would be expected by chance. By way of contrast, the percentage of item intercorrelations in excess of .30 for the four preceding subjects ranged from 22% to 50%, with a mean of 33%. Thus while it is possible that for Cal's responses the item correlations found represent little more than chance fluctuations around zero, his data were nevertheless subjected to a Principal Components Analysis.

The Principal Components Analysis for Cal yielded nine components with eigenvalues greater than 1.0 which accounted for 67% of the total variance. The first unrotated component accounted for 14% of the variance which, along with the total variance accounted for, is somewhat low in comparison to the values obtained for the other four subjects.

The items and occasions with significant loadings on unrotated Component 1 are shown in Table 33. Component 1 is bipolar, with 6 items with positive and 6 items with neg-

ative loadings. It does not appear to be clearly interpretable, since there are items with related content on opposite poles. Both the positive and negative poles include conceptual, communication, control, relationship, and specific in-session therapy skills. There are personal and category items with loadings on both poles. Thus it is unclear what the contrast in item loadings on this component represents.

The occasions with significant loadings on unrotated Component 1 are also shown in Table 33. It is evident that Component 1 does not differentiate these occasions on the basis of different stages in therapy over the semester. This can be seen more clearly by referring back to Figure 5. There are occasions from both poles which occurred near the middle of the semester. A comparison of the mean PQ scores with the component loadings for occasions indicates that unrotated Component 1 is not an evaluative factor. There does not appear to be a different level of mean PQ scores for the occasions with positive and negative loadings. Neither is there an apparent contrast for type or timing of session; three of the occasions on either pole occurred before a therapy session. The number of inconsistent response patterns on each occasion is also shown in Table 33. Since the occasions with positive loadings tend to have more inconsistent response patterns, it may be that the contrast represented in unrotated Component 1 is between those times when

Table 33

Calif. Loadings on Unrotated Component 1

Loading	Item
0.74	11. I use specific strategies to direct the flow of therapy
0.67	10. On the whole, I am close to knowing my client
0.58	19. I can formulate strategies of action for therapy from the systemic interpretation of the case
0.54	29. I often draw analogies
0.52	20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies
0.47	15. My responses to this client flow easily and naturally
-0.47	28. I look for feedback to ensure that he understands
-0.48	18. I can interpret what happens in therapy according to systems principles
-0.48	6. I have control over the therapeutic process with this client
-0.49	7. I know what this client expects from me and from therapy
-0.49	16. I am comfortable and familiar with my client's cultural and social background
-0.53	25. I allow him time to sort out his thoughts in the session

Loading	Occasion	Mean PQ Score	No. of Inconsistencies
0.64	18. Before Therapy	1.47	4
0.41	28. Before Therapy	1.20	1
0.38	21. After Supervision	1.27	4
0.38	26. Before Therapy	1.43	4
-0.40	20. Before Therapy	1.17	0
-0.58	22. Before Therapy	1.43	1
-0.58	9. Before Therapy	1.23	0
-0.73	23. After Therapy	1.40	2

Note. Accounts for 13.83% of the variance.

Cal responded more inconsistently and times when he responded more consistently.

The rotated components are not reported. On the first (and largest) rotated component, there were only 4 items and 5 occasions with significant loadings. By comparison, the first rotated components for the four other subjects had 7 to 11 items and 10 to 14 occasions with significant loadings. Even for Bob who completed the PQ on only 15 occasions, there were 10 occasions loading on Rotated Component 1, while only 5 of Cal's 29 occasions did. His remaining rotated components were, of course, increasingly smaller. Thus it appeared that the rotated components did not meaningfully differentiate between definite stages or periods in the supervised therapy over the semester.

Summary

A number of interrelated aspects of these data raise serious concern about interpretations;

- the high number of inconsistent responses,
- the patterns of inconsistencies, especially for
 - personal items
 - response patterns with scores higher than 1 (goal)
 - responses to the PQ on occasions before and after therapy
- the close proximity of the overall mean, and individual item and occasion mean PQ scores to the positive end-point of the scale,

- the apparent lack of a trend in changes in mean PQ scores for occasions over the semester,
- the high percentage of total variance attributable to the four items with the most inconsistencies,
- low item intercorrelations,
- the low percentage of variance accounted for by the factor structure and by the first unrotated component,
- the absence of a global evaluative component,
- the lack of any other clear interpretation of unrotated Component 1,
- and the low number of items and occasions with significant loadings on the rotated components.

Together these factors suggest that the data are more reflective of a response set to the PQ than of a meaningful evaluation of therapy skills over the semester. It appears that an all-positive response set, along with the inconsistent responses, is the most parsimonious interpretation of the data. It could be noted here that before the data collection began, Cal, alone of the six subjects, voiced to the researcher an expectation that no changes in therapy skills would be found in one semester. Perhaps his results are indicative of a self-fulfilling prophecy.

Therapist Amy

Amy was a single female M.A. student. She saw two therapy clients in connection with the course practicum, but neither of them for enough sessions for a PQ to be developed and administered. The first client she saw was transferred to a staff member after two therapy sessions due to a serious suicide risk. Amy saw a second client for one session but the client did not return. At this time, it was too late in the semester for Amy to pick up another client.

Amy calibrated the category items shortly after the therapy session with the second client. This was the only research requirement completed by Amy. The calibration scores show that Amy rated the goal, improvement, and problem statements of the 20 category items all close to the midpoint of the 9-point scale of therapeutic skill. (See Appendix G for Amy's calibration scores.) This indicates a lack of discrimination between the levels of therapeutic skill represented by the three statements for each item, and suggests that the statements were not meaningfully construed by Amy. Since the category items consisted of problems and goals which the supervisor considered to be important in learning the systems approach to psychotherapy, a meaningful understanding of these concepts may be needed for satisfactory learning of this approach.

CHAPTER IV

DISCUSSION

The purpose of this study was to systematically monitor and describe the pattern of changes over time in student therapists' perspectives on psychotherapy and supervision. It was found that there were systematic changes in the student therapists' thinking and perceiving of therapy which were linked to ongoing events which occurred in both therapy and supervision.

First the research questions are considered in light of the results, followed by a discussion of the complications engendered by this type of research. The theoretical and practical implications of the study are then considered and suggestions for further research are put forth.

Research Questions

A number of research questions guided the systematic description of the results:

- Is there systematic change over time in a student therapist's evaluation of her goals in psychotherapy and supervision?

- What is the pattern of change for each student therapist?
- Are changes in a student therapist's self evaluations linked with ongoing events in psychotherapy and supervision?
- Are consistent patterns evident for psychotherapy and supervision sessions, and for periods between sessions?

Descriptive answers to these questions were attempted in the Results chapter. Here, the research questions are considered on a more abstract level.

There appeared to be systematic change over time for four student therapists in their perceptions of goals in psychotherapy and supervision. (The results for the remaining two subjects are discussed in more detail in the following section.) The patterns were ordered and interpretable in two intersecting aspects; subsets of therapy skills which changed in similar ways over time, and different times when certain subsets of therapy skills were salient. The subsets of therapy skills were interpreted as commentaries or themes representing the student therapists' major dimensions for perceiving the therapy interaction. The major dimension for all four student therapists appeared to be a global positive versus negative evaluation of therapy skills. This commentary "I am/I am not doing well in therapy with this client" systematically differentiated between definite stages in therapy and supervision over the semester for these sub-

jects. More specific commentaries unique to each subject elaborated the process of changes in therapy and supervision over time.

The pattern of changes was different for each student therapist. With regard to the global evaluation of therapy, two of the four subjects ended the semester with considerably more positive perceptions relative to the beginning, while the perceptions of the two remaining subjects were very similar at the beginning and the end of the therapy practicum. In between these points, the processes for individual subjects differed as to whether large but short lasting changes, gradual change, or stable plateaus predominated. Only one subject showed a roughly linear progression toward relatively more positive global evaluations of therapy skills over the semester. For the remaining subjects, the processes were more complex and circuitous.

The changes over time in the four student therapists' perceptions of therapy were linked with ongoing events in the therapy and supervision processes. The linkage was most clearly evident in the large and lasting changes in global evaluation and salient specific commentaries which coincided with one or more major events in therapy or supervision that occurred for each of these subjects. These events appeared to be breakthrough(s) in the subjects' perceptions of therapy which Barnat (1973) described as the "I have it" experience.

There appeared to be somewhat different patterns of evaluation for therapy and supervision sessions. The student therapists' perceptions before and after therapy sessions were more directly linked to their immediate therapeutic interaction with clients. The effects of supervision were more responsive to the stage of the therapy process. There were periods of time for each subject when there were consistent effects of supervision on their perceptions of therapy. The effect of supervision generally appeared to be one of toning down extreme perceptions when subjects perceived themselves as not doing well, and one of confirming and reinforcing perceptions at times when subjects perceived themselves to be doing well in therapy.

The time intervening between therapy and supervision sessions seemed to be active periods for the subjects. Their perceptions of therapy often changed from after one session to before the next. This suggests that for these student therapists, therapy and supervision were not discrete events but interrelated episodes in one ongoing process. The student therapists continued to process their perceptions of preceding sessions in intervening periods, a well known clinical phenomenon all too often ignored in the supervision research literature. However the changes in perceptions seen after intervening periods were most often a return to a previous or more moderate level of evaluation. The more dramatic and sustained changes resulting in new

patterns of perceiving occurred from before to after a therapy or supervision session. Thus the conservative changes occurring between sessions may result more from reflection, while the radical changes occurring during some sessions may result more from interacting with the client or supervisor.

Complications

A number of complications are inevitably engendered by research of this type. Sensitive issues with pervasive effects are raised by (a) the nature of the learning process in general and of psychotherapy in particular, (b) the evaluative quality of the research and of supervision, and (c) the use of a single-case design involving fellow graduate students as subjects.

For one subject, no data were collected due to the transfer and termination of clients. The issue of clients missing or terminating therapy (which also affected some other subjects to a lesser degree) is a frequent occurrence which may greatly affect the student therapist's self-evaluation (Barnat, 1973). Yet this is largely outside the control of the student therapist (and the researcher).

For another subject, no systematic changes in perceptions of therapy were found. It was concluded that these data reflected an all-positive response set combined with patterns of unreliability. Although it was speculated that the subject's expectancy of no change became a self-fulfill-

ing prophecy, it was impossible to determine whether the data represented actual perceptions of therapy or a manner of self-presentation.

The results for this subject, and all the subjects, must be seen in the context of the study. The nature of the study required the student therapists to evaluate their therapy performance. Even a laboratory experiment which is designed to evaluate subjects personally may arouse apprehension in the subjects (Adair, 1973). A number of aspects of the present study would presumably have intensified such apprehensive reactions. Subjects were defined as students who were learning a task, and thus likely to be less sure of their performance. Since the task was psychotherapy, an evaluation of it could conceivably have profound consequences on the subjects' academic situations and future careers, as well as on their perceptions of themselves as persons, therapists, and graduate students. Barnat (1973) described student therapists' concerns about evaluation and privacy in supervision--concerns probably heightened by the extra level of evaluation imposed by research.

The use of a single-case design meant that each subject was more crucial to the researcher and more exposed to individual scrutiny than would be the case in group designs. White (1975), discussing his case study methods, stated "unless interest is enlisted to a rather unusual extent, the subject is not likely to be disposed toward wholehearted

participation and candid self-disclosure" (p. 58). These considerations were compounded in the present study, where the researcher was a graduate student colleague of the subjects and the study was a dissertation which would become a public document in a small psychology department. The research was conducted in the context of a therapy course where non-participation would be evident to the supervisor and fellow student therapists as well as to the researcher. Thus although subjects' consent to participate in the research was obtained in individual interviews, the context presented a situation in which it would be difficult to refuse and difficult to participate. The researcher remains deeply impressed at the extent to which all the student therapists participated in such circumstances.

17 The positive and negative consequences of studying supervision under very similar circumstances were eloquently expressed by Doerhman (1976). With regard to negative effects, she noted "with (one) exception...the therapists experienced themselves as being scrutinized and judged by one peer and one supervisor, which doubled whatever anxiety they had about supervision" (p. 67). On the positive side, she found that "the therapists and supervisors experienced a final therapeutic, ego-enhancing effect of the research when they read the chapters about themselves" (p. 70).

The present researcher has encountered these consequences, and believes there are no easy ways to tip the bal-

2

ance more to the positive side. Doerhman concluded that "tension in the supervisory relationship is inevitable; when understood and handled skillfully it is instrumental in the therapist's growth" (p. 79). This applies with equal vigour to the single-case study of supervision.

Theoretical Implications

The results are discussed in terms of their theoretical implications for (a) the meaning of the student therapists' self-evaluations, (b) the process of learning psychotherapy, (c) the impact of supervision, and (d) the impact of doing research.

The student therapists' evaluations of the PQ items on numerous occasions appeared to have more extensive and integrated meaning than simply objective assessments of isolated therapy skills. This was indicated in part by the different levels of PQ ratings characteristic of each subject. Although changes in ratings were considered more important than the absolute levels of ratings on the 4-point scale, the absolute levels appeared relative to each subject and to time. It was as if each subject had a "set point" or baseline level of rating, and changes over time were fluctuations around the set point. When decisive events occurred in therapy or supervision, the set point changed, and subsequent ratings then fluctuated around the reestablished set point.

Ratings of the PQ items appeared to be affected by factors other than the student therapists' therapy skills. The most significant other factor was how difficult the client was to work with, either generally or in a particular therapy session. Reframing of preceding events also affected student's later ratings. One subject stated that the components represented "ends of continua of therapists' self-evaluation of their ways of working with and evaluating their interaction with their clients". Thus for the student therapists themselves the PQ ratings represented more than their therapy skills.

The results of this study indicate that the process of learning how to do psychotherapy involves a different specific pattern of changes for each student therapist. Thus the "myth of uniform process" (Elliott, 1983, p. 47) decried in psychotherapy process research may be equally inapplicable in supervision process. The diversity of patterns found for four student therapists indicates that there is no reason to expect gradual progression toward improvement in psychotherapy, at least in self-evaluations. The typical use of only pre and post measures to examine change due to supervision (e.g. Roberts, 1983) may thus lead to inaccurate conclusions that no change had occurred.

On another level however there were parallels in the pattern of changes in perceptions for all the student therapists. One striking example was the emergence for four sub-

jects of a global dimension which differentiated between times when negative perceptions and times when positive perceptions of therapy predominated. For each of the four subjects this dimension appeared to have been used in a similar fashion, yet was made up of different evaluative criteria. The patterns of PQ items which did and did not serve as criteria for global evaluation of therapy appeared to be consistent with different therapeutic orientations for each subject.

Another similarity among the four subjects was the existence of decisive events which were associated with large and sustained changes in their perceptions of therapy. When the process was examined in sequence, these events appeared to have been preceded by periods of neutral or negative perceptions which may have been building up to the change. Yet the amount and direction of change in perceptions, and the quality of the periods building up to the decisive events were different for each student therapist.

The resolution of therapy for the four subjects could be regarded as a change toward more realistic perceptions of therapy. Barnat (1973) described such resolutions as involving "a more realistic appraisal of one's self-as-working-therapist" (p. 5). What defined more realistic perceptions varied from an acceptance of what could be accomplished with a particular client in the amount of time available, to a realization of a client's contributions to

her own difficulties, to the therapist's awareness of her impact on her client.

The results of this study suggest that the impact of supervision is relative to the student therapists' perceptions of the therapy process. Generally, supervision appeared to have a moderating influence when the student therapists were not doing well in therapy with their clients, and to have a confirming and reinforcing influence when things were going well. The important impact of supervision was noted also at times when there had been no therapy sessions, due to the client being ill, missing or terminating therapy, or at the end of therapy. The complexity of the impact of supervision seen in the present study suggests that the effects of supervision have often been inadequately assessed. For example, recent studies using retrospective ratings of the global impact of supervision on three or fewer multiple-choice items (Heppner & Handley, 1981; Heppner & Roelke, 1984; Worthington & Roelke, 1979) may have missed the essence of the effects of supervision over time.

Doerhman (1976) found that her study of the supervision process "was a catalyst for change" by "encouraging therapists and supervisors to examine and reflect upon the ongoing processes of therapy and supervision" (pp. 68-69). Similarly it was suggested to the present researcher that the act of assessing the student therapists' perceptions of therapy may also affect their perceptions. One subject,

while sorting the PQ cards early in the study, enquired "are these supposed to promote change as well as record change?"

Practical Implications

The Personal Questionnaire technique appears to have benefits for use in supervision as an assessment and training tool. A major advantage of the PQ is that it is a method, rather than "the application of the same prefabricated questionnaire to every subject" (Shapiro, 1964b, p. 283). The content of the PQ can then be situation-specific for the supervisor and the therapeutic orientation, and further customized for each student therapist with her particular client. The increased content validity afforded by customization results in greater sensitivity of the PQ to change. (Neufeld, Rogers & Costello, 1972).

The use of the PQ format to define and evaluate goals in supervision has the advantage of making the supervisor's goals explicitly articulated to the student therapist. The calibration procedure allows the supervisor to determine whether the student therapist understands the supervisor's goals in the manner intended. Rosenbaum (1984) outlined the benefits to student therapists which would result from ongoing systematic and scheduled evaluations of explicit goals in supervision rather than the customary single evaluation at the end of supervision. The PQ has the quality of "clinical relevance" described by Elliott (1983) as characteris-

tic of "more systematic versions of cognitive activities engaged in by good therapists" (p. 51).

The PQ can be simple to use in supervision. To devise and construct the final form of the PQ can take as little as four hours (Shapiro, 1964a). Calculating and graphing the mean scores of the PQ items for each occasion of PQ administration is a quick, simple method of tracking the student therapists' perceptions of therapy over time (Slater, 1970, p. 369). The results of this study indicate that the mean scores of the PQ items on each occasion roughly approximate the global evaluation dimension derived from the principal components analysis. The graphs of mean scores can thus be utilized to examine the effects of individual sessions or the patterns of changes over time on student therapists' global perceptions of how well they are doing in therapy.

As well as examining the effects of individual sessions or process, the PQ data can be used as a summary at the end of therapy or a significant stage of therapy. Comments from some subjects suggested that the results of the PQ can serve as prompts for student therapists to integrate their therapy experience after it had ended. Fay remarked upon viewing her results "I feel like a fortune teller". Don stated that the PQ was a "method to chart and formalize the therapist's way of perceiving the interaction with the client".

Suggestions for Further Research

The present researcher agrees with Doehrmann (1976) that "there should perhaps be more concern over the deleterious effects such results could have upon the therapists" (p. 67). Accordingly, in single-case research, especially of supervision, the researcher should attempt to temper her single-mindedness on the research so as not to underestimate the subjects' reactions. The single-case researcher should attempt to address subjects' questions more fully than with reassurance. Remembering that the subjects actively process their perceptions of the research, she should inform them of what the research procedure will not entail as well as what it will entail. The researcher should explicitly state that subjects can drop out at any point in the study if they feel they are being asked to disclose more than they care to. Finally, the researcher should attempt to foresee any possibilities, and plan for them as much as possible.

Since the present study focused intensely on four student therapists, future research would do well to replicate and extend these findings. The importance of replication in single-case research has been stressed (Kiesler, 1981; McCullough, 1984b). Shapiro (1964b) stated:

an essential requirement of the single-case method is replicating, i.e. one goes on to determine to what extent the findings can be repeated in other similar individuals. The one thing that the single case worker

does not do is add up the results for say 30 people, .
..thus cancelling out the effect of individual differences. (p. 289)

The present study used the PQ to examine the work of each student therapist with one client and one supervisor over a single semester. Further research could extend these parameters in a number of ways. Student therapists' perceptions of therapy could be systematically monitored over a longer period of time. Each student therapist could be monitored with several clients and/or supervisors simultaneously. The supervisor's evaluations of the student therapist could be coordinated with self-evaluations over time. The PQ could be used in supervision with ongoing feedback to the student therapist and/or supervisor.

Appendix A

QUESTIONS BASED ON HIERARCHICAL SCHEMA

The following is a list of questions given to the student therapists in the systems therapy class to answer about their clients. The students developed and elaborated their answers to these questions over the course of the semester. The questions were based on the hierarchical schema developed by the supervisor to relate systems theory to the pragmatics of psychotherapy.

Problem

1. How does the client define his or her problem(s)? (in his or her own words)
2. How has the client's problem(s) changed/stabilized over time?
3. What was the origin and development of the problem?
4. What will happen if the problem(s) is not resolved?

Goals - Change

1. What strategies has the client used to resolve his or her problem? The result?
2. How does the client specify the solution to the problem (ideal or otherwise)?
3. Why does he or she feel that he or she has not adequately resolved the problem?
4. What is he or she prepared (willing) to do or not to do to achieve change?

5. Why should he or she change? (from client's point of view)
6. What aspects of the client's life would need to be altered for change to occur?

Relationship

1. How does the type of problem(s) the client presents effect/determine/define his or her potential relationship with the therapist?
2. Dyadic Relations - Examples of primary (core) dyadic relations in the person's life. Pattern - form - exchange process in each. (types - styles) Provide examples within and without his or her family context. Focus on dyadic relations skills and deficiencies.
3. What types of relationships (or absence of same) have been established with others as a function of the problem which (a) maintain the problem or (b) foster a potential solution to the problem?
4. What was the client's pattern/style/method of relating to his or her family? His or her role, position, effect on the family process. His or her strategies of relating to his or her family system.
5. How does his or her pattern of creating/defining interpersonal relations interface with his or her cultural/social context, and other social/cultural contexts?

Process - Causality - Change

1. What does the client perceive as the "cause" of his or her problem? What is his or her "theory" as to the origin of the problem?
2. What critical incident(s) are related to the origin of the problem(s)?
3. Why is the client seeking assistance at this particular time?
4. How much control does the problem(s) have on his or her life? If he or she didn't have the problem what would his or her life be like?
5. Where is the source of the problem located for the client? Once defined what would have to change to resolve the problems?

Contract

1. What does the client expect from the therapist? How does this relate to his or her problem?
2. What role does the client wish to play in the treatment process?
3. What does the client not want the therapist to do?

Techniques

1. How does the client's style of relating determine or control the types of exchanges you can execute? (constraints)
2. How is the client's style going to limit your formal techniques?

Context

1. What aspects of the client's life are affected by the problem?
2. What aspects of the client's life are unaffected by the problem?
3. How do these two areas reciprocate i.e. how do people respond to the client's problems?

Communication

1. What is the predominant "style" of communicating (organized, verbal, slow, hesitant, emotional, affected, clear, confused) characteristic of the client?
2. What self descriptions does the client attribute to himself or herself? (evaluative statements, referential point of view)

Action - Patterns (adaptive strategies)

1. How does the client attempt to cope with the problem (major strategies) across contexts?
2. How does the client deal with the problem in non-psychological ways?
3. What are the major affective states associated with the problem?

Mediational States

Levels of Causality

Goal - explain how the problem exists at each level.

Neuro Psychological Level

What are the physiological - biological accompaniments of the problem?

- temperament - activity level
- neural assets/deficiencies
- primary neural processing/relations - deficits
- activity patterns (triggered)
- organizational structure of CNS

Person Level (actions)

- skill - organized thought/activity patterns
- perceptual - cognitive - affective organizational pattern
- communication - style

- abilities/lack
- cognitive/affective --> states (style)
- mediational themes - constructs
- organization of psychological themes

Dyadic Level (action in dyadic context)

- developmental - primary interpersonal styles
- patterns of dyadic relations (style)
- hierarchy of dyadic relations
- effectiveness (result of dyadic relations)
- alliances --> with other social groups
- dominant dyadic pattern (now present)

Family Level (actions - dyad in family context)

- norms and organizational references (context)
- communication (effect) on system (the fit)
- role and rules (of interaction)
- expected pattern (given dynamics)

Cultural Context

- cultural significance - norms
- life style (significance - stages and patterns)

Society - Economic - Social - Ideological

Appendix B
PILOT STUDY OF INTERVIEW SKILLS

Method

Subjects. Subjects were the same 6 student therapists who were subjects for the main study. The student therapists are referred to in the following chapters by pseudonyms for identification. Three were M.A. students and three were Ph.D. students in a graduate program in clinical psychology. The six subjects were taking a graduate course on a systems approach to psychotherapy which included a supervised therapy practicum. All had taken at least one prior therapy course and had previously seen at least one client in supervised psychotherapy. They ranged in age from mid-twenties to early thirties. There were three males and three females; two males were married and the remaining four students were single.

Procedure. In an interview with the supervisor, ten specific skills in basic interviewing were identified from a systems theory schema used as a framework for the course. These were formed into 10 items, shown in Table 34. Three statements varying in level of intensity--goal (A), improvement (B), and problem (C)--were constructed for each item (see example for item 1 in Table 34). These were checked and modified by the supervisor. Each of the 30 statements was typed on a separate 3" by 5" index card. These cards were presented one at a time in random order to each subject for calibration. The subject rated each statement on a

9-point scale of facility/difficulty in interviewing skills (see Table 35). The subjects' calibration ratings are shown in Table 36.

Three paired comparisons were constructed between the three statements for each item. The two statements in each comparison were typed, one above the other, on an index card. The level of intensity of the top and bottom statements was counterbalanced across items. A deck of 30 such cards constituted the final form of the Interview PQ.

Near the beginning of the practicum section of the course, the Interview PQ was administered to all subjects Before and After each supervision session for two weeks. This time period included the third and fourth, or fourth and fifth supervision sessions for subjects, depending on when they had started seeing their clients. Administration and scoring of the PQ were done as described in Appendix C.

Table 34

Items for Interview PQ

1. A I prompt my client to discuss her/his problem longitudinally.
 B I prompt my client somewhat to discuss her/his problem longitudinally.
 C I do not prompt my client to discuss her/his problem longitudinally.
2. A I prompt my client for an integration of their story.
3. A I use a variety of open-ended feedback styles.
4. A I formulate feedback in my client's own language.
5. A I use reflective, non-interpretive language.
6. A I search for referents for the client's language system.
7. A I search for sequences of events to get a picture of what the client describes.
8. A I do not close off the flow of our interactions prematurely.
9. A On the whole, I talk less than my client does.
10. A I prompt my client for her/his explanation of the problem.

Table 35

Rating Scale Used in Calibration

Interviewing Skills

1. Very great facility
2. Great facility
3. Moderate facility
4. Slight facility
5. Indifferent
6. Slight difficulty
7. Moderate difficulty
8. Great difficulty
9. Very great difficulty

Table 36

Subjects' Calibration Ratings

Item	Amy			Bob			Cal		
	A	B	C	A	B	C	A	B	C
1.	5	4	5	4	4	2	3	4	7
2.	6	5	4	2	2	3	3	4	3
3.	4	4	6	1	6	6	3	3	7
4.	3	3	6	1	2	6	3	3	7
5.	4	4	6	2	2	7	3	2	7
6.	4	4	6	1	3	8	2	4	7
7.	3	4	6	1	3	6	2	4	8
8.	2	8	8	1	6	7	7	6	7
9.	3	4	7	3	4	8	2	7	8
10.	4	3	6	2	3	3	4	4	6
<u>M</u>	3.8	4.3	6.0	1.8	3.5	5.6	3.2	4.1	6.7

Item	Don			Eva			Pay		
	A	B	C	A	B	C	A	B	C
1.	3	4	7	3	3	5	2	3	8
2.	3	4	8	3	3	7	2	3	8
3.	3	4	7	1	4	7	2	4	3
4.	3	3	8	1	3	9	2	3	8
5.	4	4	9	2	2	7	2	3	8
6.	3	4	9	1	3	8	2	4	8
7.	3	3	7	2	3	9	2	3	8
8.	1	7	8	2	7	8	2	6	7
9.	5	5	8	2	7	8	3	4	7
10.	3	4	7	2	2	8	2	2	8
<u>M</u>	3.1	4.2	7.8	1.8	3.7	7.6	2.1	3.5	7.3

Results

The results for Fay serve as an example. Fay's calibration ratings can be found in Table 36. The mean ratings for statements A, B, and C are 2.1 (great facility), 3.5 (moderate facility), and 7.3 (moderate difficulty) respectively. This indicates that, on average, Fay made a slight discrimination between goal and improvement statements, and a large discrimination between improvement and problem statements. Regarding the calibration of individual items, item 6 was rated as ideally intended. The goal and improvement statements for item 10 were rated the same, which is not as intended. As well, the problem statement for item 3 was rated more positively than the improvement statement. Thus, in general, Fay discriminated as intended among item statements, with a few exceptions.

The raw PQ scores and means for Fay are presented in Table 37. As this table shows, Fay completed the Interview PQ four times: Before and After two supervision sessions. For some items, the scores remained the same over all administrations; others varied within an occasion, or from one occasion to the next. An examination of the item means shows that Fay evaluated herself most negatively on items 3 (using a variety of open-ended feedback styles) and 8 (not closing off the flow of interactions prematurely). These skills could be focused on more intensively in supervision. Fay rated herself most positively on items 1, 4, 7 and 10.

These skills could be focused on less, or used as building blocks to improving other interview skills. An examination of the occasion means shows that Pay evaluated herself more negatively After the first supervision session, more positively Before the second session, and even more positively After.

Table 37

Raw and Mean Interview PQ Scores for Pay

Occasion					
	Feb. 11		Feb. 18		
Item	Before	After	Before	After	<u>M</u>
1.	2	1	2	1	1.50
2.	2	4	2	2	2.50
3.	3	3	3	3	3.00
4.	2	2	1	1	1.50
5.	2	1	2	2	1.75
6.	2	3	2	2	2.25
7.	2	1	2	1	1.50
8.	3	3	3	3	3.00
9.	2	2	2	1	1.75
10.	1	3*	1	1	1.50
<u>M</u>	2.1	2.3	2.0	1.7	2.025

Note. * indicates inconsistent response patterns.

The mean occasion scores for all subjects are presented in Table 38. Amy completed the Interview PQ at only one session, as she missed one supervision session during the

pilot study. After scores are missing on one occasion each for Cal and Don for the sessions in which they did not receive supervision. Only for Don was there more than 5% inconsistent response patterns.

Table 38

Mean Occasion Scores for all Subjects on the Interview PQ

Subject	Occasion				Inconsistent Responses	
	Feb. 11		Feb. 18		No.	%
	Before	After	Before	After		
Amy	-	-	2.2	2.7	0	-
Bob	2.75	2.3	2.8	1.9	1	2.5
Cal	1.1	1.2	1.4	-	0	-
Don	1.3	-	1.65	1.55	2	6.6
Eva	2.1	2.0	2.05	1.8	1	2.5
Fay	2.1	2.3	2.0	1.7	1	2.5

The mean occasion scores for subjects are also presented in graphical form in Figure 6, where the patterns of change are easier to detect. For example, Bob evaluated himself more positively After both sessions than Before, but between the sessions his score returned to its previous level. Eva also evaluated herself more positively After supervision than Before, but more cumulatively since there is little change between sessions. In this way, the patterns of change over time for all the subjects can be discerned.

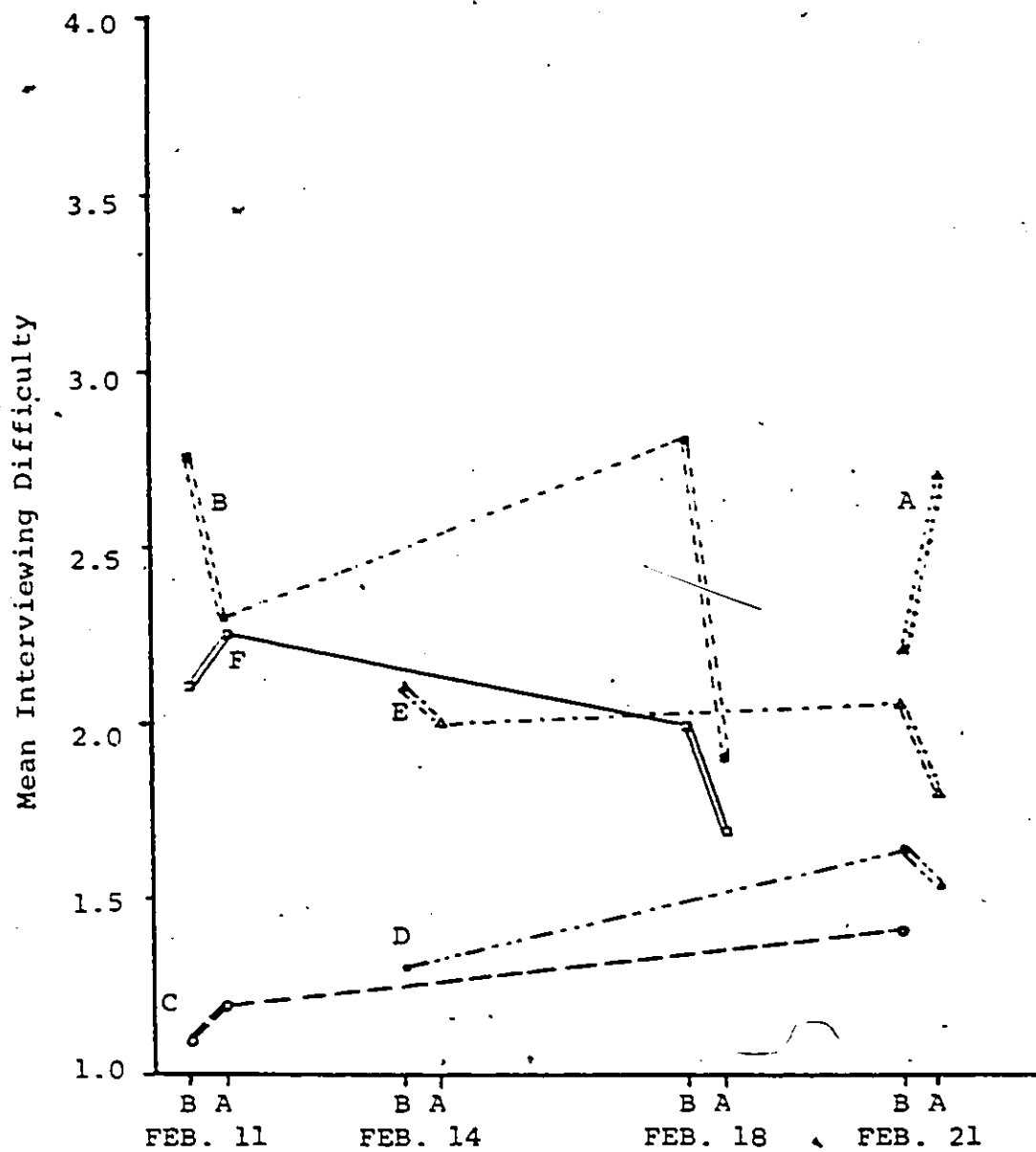


Figure 6. Mean occasion scores for all subjects for the interview Personal Questionnaire.

Discussion

The method and instructions were easily comprehended and followed by the subjects. The three hour supervision sessions were not disrupted by the brief amount of time necessary to administer the PQ. The type of information produced, for both items and occasions, was considered meaningful for the goals of the main study.

Some problems were noted. The calibration ratings showed that some subjects did not clearly discriminate between the levels of intensity of the three statements for some items. As well, some of the ratings were not in the intended direction i.e. the goal or improvement statement was rated more negatively than the problem statement. To deal with this problem in the main study, individual interviews were held with each subject to discuss their calibration ratings and to change the wording of the item statements if necessary.

Another problem was that some subjects missed supervision sessions or did not receive supervision at a session for some reason (such as their client missing a therapy session or terminating therapy). Therefore in the main study, caution would be used in interpreting the data for those subjects who did not complete the PQ Before and After a minimum of five supervision and five therapy sessions while seeing the same client.

The final problem noted was that one subject had 6.6% inconsistent response patterns (2 out of a total of 30). Therefore the data for subjects with more than 5% inconsistent response patterns overall (M.B. Shapiro & L.A. Shapiro, 1974) would be interpreted with caution.

The Interview PQ was administered at the most at two supervision sessions per subject, so the results found in this pilot study may not be very informative. However, it was concluded that methodologically and practically Shapiro's Personal Questionnaire technique could be used in a larger study of supervised psychotherapy.

Appendix C
CONSTRUCTION OF THE PQ

The construction of the PQ generally followed the method outlined by Shapiro (Shapiro, 1961a, 1961b, 1964a; Shapiro, Litman, Nias, & Hendry, 1973), with some modifications as outlined below.

Eliciting Items

Number of Items. In studies reported by Shapiro and his colleagues, between 17 (Shapiro, 1969b, case A) and 30 (Shapiro & Shapiro, 1974, case 1) items per PQ were used. In the present study, the maximum number of items was set at 31. This was based roughly on Shapiro's upper limit of items, and on the present researcher's previous clinical use of the PQ. It was found that for a depressed female psychotherapy client, 31 items yielded considerable information, yet could be administered quickly before and after therapy sessions without tiring the subject.

Category Items. In interviews with the supervisor, it was decided that 20 items would concern problems and goals which were specific to learning the systems approach to psychotherapy, and therefore would be common to all six students in the class. It was decided that 20 items would be sufficient to include all the categories of the Applied level of the hierarchical schema used in the course, while allowing enough remaining items to be specific to each student therapist. The 20 category items elicited from the supervisor are listed in Table 39.

Table 39

PQ Items Elicited from the SupervisorCategoryProblem

1. On the whole, I am comfortable with this client's defined problem.
2. I can clearly conceptualize this client's problem from multiple perspectives.
3. I can help this client with the defined problem.

Goals

4. I believe that this client has potential for change.
5. I have a clearly formulated overall plan for therapy with this client.

Contract

6. I have control over the therapeutic process with this client.
7. I know what this client expects from me and from therapy.

Relationship

8. I can see things from my client's viewpoint.
9. I identify with this client.
10. On the whole, I am close to knowing my client.

Techniques

11. I use specific strategies to direct the flow of therapy.
12. On the whole, my client is cooperative with my therapeutic strategies.

Process

13. I see expected changes occurring in my client.
14. I see order in this therapy relationship.

Communication

15. My responses to this client flow easily and naturally.

Context

16. I am comfortable and familiar with my client's cultural and social background.

Metacategory Items

17. I easily find examples from my therapy sessions to illustrate the category questions and systems principles.
18. I can interpret what happens in therapy according to systems principles.
19. I can formulate strategies of action for therapy from the systemic interpretation of the case.
20. I can integrate what happens in therapy, my interpretation of it, systems principles, and action strategies.

Personal Items. The remaining 10 or 11 items were elicited separately from each subject in individual interviews. The interview began with a "brainstorming" phase. First, each subject was asked for any spontaneous ideas. Then she was asked if there were particular problems or goals that she was interested in having monitored over the course of the psychotherapy and supervision. Finally, a list of general themes was given to the subject to use as a guideline for generating ideas (see Table 40). Everything mentioned in the brainstorming phase as an idea for an item was noted until more than 11 ideas had been generated. Then the researcher and the subject went back over the list to refine the ideas into items.

Table 40

General Themes for Generating Personal Items

Feelings about client e.g.-empathy	-identify
-powerlessness	-irritation
-frustration	-responsibility
-emotional contact/distance	

What aspects of client do you find most difficult to deal with?

- specific problems with this client
- not what would be common to intake/beginning therapy with any client

What skills, feelings, attitudes, needs which are practical and specific to this case do you need to work on?

- e.g.-pace
- patience
- reacting automatically

What do you want to do more of/less of? (in therapy with this client)
 What do you want to start doing/stop doing?

Drafting Three Statements for each Item

Shapiro (1961a) formulated three statements per item: A, a recovery statement; B, an improvement statement; and C, an illness statement. Analogously, in the present study, a goal statement, an improvement statement, and a problem statement were drafted for each item. They were written with the intent that the subject be able to clearly discriminate between the levels of intensity of the three statements in the above order. The original wording of the items was kept as much as possible. For the 30 or 31 items, there were 90 or 93 statements in total.

Calibration

The calibration phase was conducted to check that the subject could discriminate in the intended direction among the statements for each item. Shapiro had his subjects rate each statement along a dimension of hedonic tone. He used a 9-point rating scale ranging from very great pleasure (1) to very great displeasure (9) (Shapiro, 1964a). However, he noted that "it would be possible to develop methods of calibrating a patient's responses in accordance with other variables" (Shapiro, 1961a, p. 155). Phillips (1976) stated that Shapiro used the hedonic dimension as it "is the most appropriate one for depressive symptoms" but "in general, any relevant dimension might be employed" (p. 211). It was decided that for the present purposes, a dimension of thera-

peutic skill would be relevant. A 9-point scale similar to Shapiro's in form was constructed and is shown in Table 41.

Table 41

Rating Scale Used in Calibration

Therapeutic Skill

1. Very great facility
2. Great facility
3. Moderate facility
4. Slight facility
5. Indifferent
6. Slight difficulty
7. Moderate difficulty
8. Great difficulty
9. Very great difficulty

For the calibration procedure, each of the 90 or 93 PQ statements was typed on a 3" by 5" white index card. The 9-point rating scale for therapeutic skill was typed on a larger 4" by 6" card, which was given to the subject. The PQ statements were placed one at a time in random order before the subject. She was asked to decide which of the nine rating points best described the implications of each PQ statement and to record the ratings. The relative ratings of the three statements for each item were then determined.

Ideally, statement A (goal) should be rated at least two points above statement B (improvement), which in turn should be rated at least two points above statement C (problem) on the 9-point scale of therapeutic skill. If a sub-

ject's ratings did not meet these criteria, they were discussed with the subject in an individual interview. The subject was asked to recalibrate all or some items, and/or the wording of the items was changed. There was an attempt to maintain the original wording of the 20 category items for all subjects. The wording of the personal items for each subject was freely changed if they were not calibrated as expected.

Final Form of the PQ

Three paired comparisons between statements were constructed for each item. The comparisons paired statements A and B; A and C; and B and C. The two statements in each comparison were typed one above the other on an index card. To control for position set, the level of intensity of the top and bottom statements was counterbalanced. As shown in Table 42, there are 8 possible combinations of the order of the top and bottom statements of the three comparisons for an item. These eight combinations were used for the first eight items and repeated for the remaining items.

A code number was inscribed on the back corner of each card to identify the item and the paired comparison e.g. 1AB or 2BA. The final form of the PQ consisted of a deck of 90 or 93 cards. Three decks were made for each subject.

Table 42

Eight Combinations for Counterbalanced Order of Paired Comparisons

1	2	3	4	5	6	7	8
AB	BA	AB	BA	AB	BA	AB	BA
AC	AC	CA	CA	AC	AC	CA	CA
BC	BC	BC	BC	CB	CB	CB	CB

Note. A = goal, B = improvement, C = problem statement. The first letter in a pair indicates the top statement typed on a card; the second letter indicates the bottom statement.

Administration of the PQ

The subject was given the deck of PQ cards, which had been shuffled thoroughly to achieve a random order. The subject was instructed to decide for each card whether the top or the bottom statement was nearer to her present state of therapeutic skill. The cards were sorted into two piles, top and bottom, according to the statement chosen.

The subject's schedule of therapy sessions was recorded. Before each therapy session the subject was given two shuffled PQ decks to sort, one Before and one After the session. Subjects were instructed to return the sorted decks to the researcher as soon as possible after therapy. The researcher attended all supervision sessions to record the subject's PQ sorts Before and After the supervision, as well as to take process notes of the supervision. The researcher

recorded the subject's sorts by listing the code numbers of the cards in the top or bottom pile. The deck was then reshuffled by the researcher for future use.

Scoring of the PQ

The recorded sorts of the three paired comparisons were transformed into one score for each item. There are eight possible response patterns for an item. These patterns and their corresponding scores are shown in Table 43.

Table 43

PQ Response Patterns and Corresponding Scores

Consistent Response					Inconsistent Response					
Pat- tern	Comparison				Pat- tern	Comparison			Most Similar Pattern(s)	Score
	AB	AC	BC	Score		AB	AC	BC		
I	A	A	B	1	V	A	C	B	I III	2
II	B	A	B	2	VI	B	A	C	II IV	3
III	B	C	E	3	VII	A	A	C	I	1
IV	B	C	C	4	VIII	A	C	C	IV	4

Note. A positive score of 1 indicates minimum intensity (goal); intermediate scores of 2 and 3 indicate moderate intensity (much improvement and moderate improvement, respectively); a negative score of 4 indicates maximum intensity (problem).

Four of the response patterns are internally consistent. The remaining four are internally inconsistent e.g.

the goal statement (A) is chosen over the improvement statement (B), and the problem statement (C) is also chosen over the improvement statement (B). An inconsistent pattern received the same score as the consistent pattern to which it is the most similar. For example, pattern VII (AAC) is most similar to pattern I (AAB), so it was scored 1. However, patterns V and VI are each equally similar to two consistent response patterns. Shapiro gave both these response patterns an arbitrary score of 2.5 (Shapiro, 1961a, p. 153) which is simply the midpoint of the rating scale (Shapiro, Marks, & Fox, 1963, p. 84). Phillips (1976) suggested instead that "scores of inconsistent patterns with more than one nearest adjoining order may be obtained by averaging" (p. 216). Phillips' method of scoring inconsistent response patterns was followed in the present study, as data coding and analysis are simpler with whole numbers than fractions.

Reliability of the PQ

The number of inconsistent response patterns for all administrations of the PQ was determined for each subject. One criterion for reliability was that inconsistent response patterns account for no more than 5% of the total number of response patterns for each subject. If this level of consistency was not met, the subject's data would be interpreted with caution.

The significance of the consistency of responding for each PQ item for each subject was calculated. Under conditions of random responding, it is expected that 50% of the response patterns would be inconsistent. Phillips (1976) provided a formula for calculating the level of significance at which the consistency of responding for an item differs from random responding. The formula is as follows (Phillips, 1976, pp. 225-226):

$$\chi^2 = \frac{(N * \bar{E}(i) - \sum i)^2}{N * \bar{V}(i)}$$

where: N = number of occasions

$\bar{E}(i)$ = expected value of i (.50 for an item with three statement pairs)

i = number of discrepancies between a pattern and its nearest adjoining pattern (1 for an item with three statement pairs)

$\bar{V}(i)$ = variance of i (.25 for an item with three statement pairs)

The criterion was that the consistency of responding for each item must be significantly different from random responding at the .01 level. If this level of consistency was not met, the subject's data would be interpreted with caution.

Appendix D

THERAPIST DOW—ADDITIONAL DATA

Table 44

Don: Calibration Scores

Statements								
Category				Personal				
Item	A	B	C	Item	A	B	C	
1.	4	6	7	21.	2	3	8	
2.	3	4	7	22.	1	4	8	
3.	3	4	7	23.	2	6	9	
4.	3	4	5	24.	2	3	8	
5.	3*	4*	7*	25.	1	3	8	
6.	3*	4*	9*	26.	1	4	8	
7.	3	4	7	27.	2	4	8	
8.	2	3	8	28.	3	6	7	
9.	3	4	8	29.	1	3	8	
10.	1	2	5	30.	1	3	8	
11.	3	4	5	31.	2	7	9	
12.	2*	3	5					
13.	2*	3*	7*					
14.	3*	4*	9*					
15.	1	3	7					
16.	3	4*	8					
17.	3	6	7					
18.	3	5	7					
19.	3	4	7					
20.	3	4	5					
<u>M</u>	2.7	4.0	6.8		1.6	4.2	8.1	

Note. Category items were those elicited from the supervisor. Personal items were those elicited from Don. Three statements were developed per item. A = goal, E = improvement, C = problem statement. The statements were calibrated on a 9-point scale of therapeutic skill ranging from very great facility (1) to very great difficulty (9). The intent was that the goal statements be rated near the top of the scale (1), the improvement statements around the midpoint (5), and the problem statements near the bottom (9). Ideally, the scores for each statement would be separated by 2 scale points. In practice, it was accepted if the scores for each statement were separated by 1 scale point.

* indicates a recalibrated score.

There is adequate average discrimination between statements, and the statements for individual items are calibrated in the expected direction.

Table 45

Don: Personal PQ Items

21. I refrain from acknowledging my client before he's struggled with expressing himself.
22. I proceed at my client's pace.
23. I do not impose premature intellectual conclusions on my client.
24. I check out how my client perceives our ongoing transactions..
25. I break into my client's rhythm when it is appropriate.
26. I instruct my client about people when it is appropriate.
27. I make appropriate connections and interpretations to my client.
28. I do not have a need to take care of my client.
29. I listen behind my client's words rather than to the content.
30. I feel my client's depression and confusion without distancing myself.
31. I do not feel exhausted, helpless and confused about my client.

Table 46

Don: Occasions of PQ Administration

- | | |
|------------------------|------------------------|
| 1. After Therapy | 16. After Therapy |
| 2. Before Therapy | 17. Before Supervision |
| 3. After Therapy | 18. After Supervision |
| 4. Before Supervision | 19. Before Therapy |
| 5. After Supervision | 20. After Therapy |
| 6. After Therapy | 21. Before Therapy |
| 7. Before Therapy | 22. After Therapy |
| 8. After Therapy | 23. Before Supervision |
| 9. Before Supervision | 24. After Supervision |
| 10. After Supervision | 25. Before Therapy |
| 11. Before Therapy | 26. After Therapy |
| 12. After Therapy | 27. Before Supervision |
| 13. Before Supervision | 28. Before Supervision |
| 14. After Supervision | 29. After Supervision |
| 15. Before Therapy | |

Note. The PQ administration was missed four times for therapy sessions due to Don forgetting to sort the PQ cards. The PQ was missed once after a supervision session because the session was cancelled.

Table 48

Don: Inconsistent Response Patterns

No. of Inconsistencies	Item			Occasion	
1	4	14	22	8	18
	5	15	23	15	25
	6	21	25	17	28
			30		
2				19	20

Calculation of Consistency of Responding

For items with 1 inconsistency each over 29 occasions:

$$\chi^2 = \frac{(29 * .5) - 1)^2}{29 * .25} = 25.14, \text{ with 1 d.f., } p < .001$$

Where; 29 = number of occasions
 .50 = expected percentage of inconsistencies under random responding
 1 = number of inconsistencies found per item
 .25 = expected variance of inconsistencies under random responding

Therefore 1 inconsistency per item with responses on 29 occasions is significantly less than would be expected on the basis of completely random responding.

Table 49

Don: Items Ranked By Variance

Rank	Item	Mean	Variance	Percentage
1	14. see order in therapy relationship	2.48	37.24	6.19
2	1. comfortable with C's problem	2.14	35.45	5.89
3	29. listen behind C's words no content	1.93	31.86	5.30
4	3. can help C with problem	2.31	30.21	5.02
5	27. make connections interpretations	2.69	28.21	4.69
6	28. no need to take care of client	1.76	27.31	4.54
7	11. specific strategies to direct flow	3.03	26.97	4.48
8	26. instruct C about people approp	1.97	26.97	4.48
9	12. C cooperative with strategies	3.31	26.21	4.36
10	15. responses to C flow easily natural	2.97	24.97	4.15
11	25. break into C's rhythm appropriate	2.00	24.00	3.99
12	10. close to knowing client	3.14	23.45	3.90
13	30. feel C's depression w/o distancing	1.55	23.17	3.85
14	19. formulate action from systems	3.03	22.97	3.82
15	4. C has potential for change	2.00	22.00	3.66
16	31. no feel exhausted helpless confuse	1.48	21.24	3.53
17	7. know what C expects from T & ther	3.31	18.21	3.03
18	21. no acknowledge before C struggles	1.45	17.17	2.85
19	22. proceed at client's pace	1.34	16.55	2.75
20	16. conf & familiar w C's cult/social	1.93	16.14	2.68
21	18. interpret therapy by systems prins	2.97	14.97	2.49
22	23. no impose premature conclusions	1.28	13.79	2.29
23	8. see from C's viewpoint	2.00	12.00	1.99
24	6. control over therapy process	3.55	11.17	1.86
25	24. check how C perceives transactions	1.79	10.76	1.79
26	17. find ther e.g's to illustrate sys	2.48	9.24	1.54
27	20. integrate ther, interp, sys, actns	3.55	9.17	1.52
28	5. overall plan for therapy	3.45	7.17	1.19
29	2. conceptualize C's prob mult persps	2.97	6.97	1.16
30	9. identify with client	3.86	3.45	0.57
31	13. see expected changes in client	3.90	2.69	0.45
<u>M</u>		2.50	19.41	3.23

Note. Mean = mean of scores for each item over 29 occasions. Variance = the sum of the squared deviations from the item mean. Percentage = the percentage of the total item variance accounted for by each item. C = client, T = therapist.

Table 50

Don: Occasions Ranked by Variance

Rank	Occasion	Mean	Percentage of Variance
1	4. Before Supervision	3.32	11.22
2	2. Before Therapy	3.29	6.55
3	26. After Therapy	1.94	4.83
4	1. After Therapy	3.03	4.74
5	3. After Therapy	2.23	4.51
6	8. After Therapy	2.94	4.13
7	29. After Supervision	2.00	3.92
8	17. Before Supervision	2.74	3.84
9	19. Before Therapy	2.94	3.75
10	20. After Therapy	2.94	3.64
11	21. Before Therapy	2.74	3.55
12	12. After Therapy	2.94	3.45
13	22. After Therapy	1.94	3.35
14	13. Before Supervision	2.42	3.15
15	18. After Supervision	2.74	2.91
16	16. After Therapy	2.39	2.85
17	27. Before Supervision	2.13	2.80
18	6. After Therapy	2.68	2.74
19	14. After Supervision	2.45	2.67
20	24. After Supervision	2.13	2.63
21	25. Before Therapy	2.06	2.61
22	9. Before Supervision	2.45	2.60
23	28. Before Supervision	2.03	2.50
24	23. Before Supervision	2.13	2.43
25	5. After Supervision	2.19	2.25
26	7. Before Therapy	2.32	1.87
27	15. Before Therapy	2.48	1.69
28	11. Before Therapy	2.52	1.53
29	10. After Supervision	2.42	1.28
		2.50	3.45

Note. Mean = mean of scores for 31 items on each occasion.
 Percentage of variance = percentage of total variance accounted for by each occasion.

Appendix E

THERAPIST EVA--ADDITIONAL DATA

Table 51

Eva: Calibration Scores

Statements								
Category				Personal				
Item	A	B	C	Item	A	B	C	
1.	1*	3	9*	21.	2	4	7	
2.	1	4	9	22.	1	4	9	
3.	3	4	7	23.	2	6	8	
4.	2	4	9	24.	2	4	9	
5.	2	3	6	25.	1	3	8	
6.	2	3	7	26.	2	3	8	
7.	1	3	9	27.	1	4	8	
8.	1	4	9	28.	2	3	8	
9.	2*	4*	9*	29.	2	3	7	
10.	1*	3*	7	30.	1	7	9	
11.	2	5	7	31.	2	6	8	
12.	2	3	8					
13.	2	4	8					
14.	3	4	8					
15.	2	4	8					
16.	2	3	8					
17.	2	3	7					
18.	2	3	7					
19.	2	3	8					
20.	1	3	8					
<u>M</u>	1.8	3.5	7.9		1.6	4.3	8.1	

Note. Category items were those elicited from the supervisor. Personal items were those elicited from Eva. Three statements were developed per item. A = goal, B = improvement, C = problem statement. The statements were calibrated on a 9-point scale of therapeutic skill ranging from very great facility (1) to very great difficulty (9). The intent was that the goal statements be rated near the top of the scale (1), the improvement statements around the midpoint (5), and the problem statements near the bottom (9). Ideally, the scores for each statement would be separated by 2 scale points. In practice, it was accepted if the scores for each statement were separated by 1 scale point.

* indicates that the statement was recalibrated.

Table 52

Eva: Personal PQ Items

21. I do not get caught up in my client's abstractions.
22. I do not get sucked into my client's testing of me.
23. I am not intimidated by my client's confrontations.
24. I know when to take a more active role and when not to.
25. I know when and how to keep the focus on our relationship.
26. I have a clear overall picture of the process.
27. In an individual session, I can pick up the process quickly.
28. I can formulate concrete specific goals.
29. I can see how the way my client is now relates to her past.
30. I do not get caught up in my feelings of irritation and frustration toward her.
31. I do not feel responsible for the client's changing in a certain way.

Table 53

Eva: Occasions of PQ Administration

- | | |
|-------------------------|-------------------------|
| 1. Before Supervision | 18. After Therapy |
| 2. After Supervision | 19. Before Supervision |
| 3. Before Therapy | 20. After Supervision |
| 4. After Therapy | 21. Before Therapy |
| 5. Before Therapy | 22. After Therapy |
| 6. After Therapy | 23. Before Supervision |
| 7. Before Supervision | 24. After Supervision |
| 8. After Supervision | 25. Before Therapy N.S. |
| 9. Before Therapy | 26. Before Supervision |
| 10. After Therapy | 27. After Supervision |
| 11. Before Therapy N.S. | 28. Before Supervision |
| 12. After Therapy N.S. | 29. After Supervision |
| 13. Before Supervision | 30. Before Therapy |
| 14. After Supervision | 31. After Therapy |
| 15. Before Therapy | 32. Before Supervision |
| 16. After Therapy | 33. After Supervision |
| 17. Before Therapy | |

Note. N.S. = client did not show for the therapy session.

Table 55

Eva: Inconsistent Response Patterns

No. of Inconsistencies	Item	Occasion
1	23 27	2 5 15 29
2	14	

Calculation of Consistency of Responding

Where items have responses on 33 occasions;

$$\chi^2 = \frac{(33 * .5) - \sum i)^2}{33 * .25}$$

Where; 33 = number of occasions
 .50 = expected percentage of inconsistencies under random responding
 $\sum i$ = number of inconsistencies found per item
 .25 = expected variance of inconsistencies under random responding

For items with 2 inconsistencies;

$$\chi^2 = 25.48, \text{ with 1 d.f., } p < .001$$

For items with 1 inconsistency;

$$\chi^2 = 29.12, \text{ with 1 d.f., } p < .001$$

Therefore 1 or 2 inconsistencies per item with responses on 33 occasions is significantly less than would be expected on the basis of completely random responding.

Table 56

Eva: Items Ranked By Variance

Rank	Item	Mean	Vari- ance	Per- centage
1	28. can form concrete specific goals	2.73	14.55	7.72
2	27. in session pick up process quickly	2.15	14.24	7.56
3	22. not sucked into C's testing me	1.97	10.97	5.82
4	26. clear overall picture of process	1.94	9.88	5.24
5	31. no feel responsible for C changing	2.03	8.97	4.76
6	21. no get caught in C's abstractions	2.27	8.55	4.54
7	30. not caught in irrit, frustration	1.48	8.24	4.37
8	1. comfortable with C's problem	1.55	8.18	4.34
9	3. can help C with problem	1.55	8.18	4.34
10	10. close to knowing client	2.24	8.06	4.28
11	12. C cooperative with strategies	1.61	7.88	4.18
12	13. see expected changes in client	2.12	7.52	3.99
13	4. C has potential for change	1.33	7.33	3.89
14	9. identify with client	1.24	6.06	3.22
15	7. know what C expects from T & ther	2.24	6.06	3.22
16	15. responses to C flow easily natural	1.94	5.88	3.12
17	5. overall plan for therapy	2.21	5.52	2.93
18	23. not intimidated by C confrontation	1.88	5.52	2.93
19	8. see from C's viewpoint	1.79	5.52	2.93
20	2. conceptualize C's prob mult persps	2.18	4.91	2.61
21	24. know when/not to more be active	2.15	4.24	2.25
22	25. know when, how to focus on relnship	1.94	3.88	2.06
23	11. specific strategies to direct flow	1.88	3.52	1.87
24	6. control over therapy process	1.88	3.52	1.87
25	20. integrate ther, interp, sys, actns	1.97	2.97	1.58
26	14. see order in therapy relationship	1.09	2.73	1.45
27	18. interpret therapy by systems prins	1.91	2.73	1.45
28	17. find ther e.g's to illustrate sys	1.06	1.88	1.00
29	29. see how C is now relates to past	1.97	0.97	0.51
30	16. conf & familiar w C's cult/social	1.00	0.00	0.00
31	19. formulate action from systems	2.00	0.00	0.00
<u>M</u>		1.95	6.08	3.23

Note. Mean = mean of item over 33 occasions. Variance = the sum of the squared deviations from the item mean. Percentage = the percentage of the total item variance accounted for by each item. C = client, T = therapist.

Table 57

Eva: Occasions Ranked by Variance

Rank	Occasion	Mean	Percentage of Variance
1	1. Before Supervision	2.00	7.72
2	4. After Therapy	1.87	7.34
3	12. After Therapy N.S.	1.48	5.66
4	6. After Therapy	1.52	5.51
5	10. After Therapy	1.68	4.42
6	20. After Supervision	2.13	4.21
7	8. After Supervision	1.71	3.61
8	2. After Supervision	1.81	3.72
9	18. After Therapy	1.55	3.65
10	29. After Supervision	2.06	3.61
11	5. Before Therapy	1.71	3.55
12	23. Before Supervision	2.03	3.27
13	7. Before Supervision	1.74	3.12
14	28. Before Supervision	2.10	3.04
15	11. Before Therapy N.S.	1.68	3.03
16	30. Before Therapy	2.03	2.94
17	26. Before Supervision	2.06	2.90
18	3. Before Therapy	1.81	2.82
19	33. After Supervision	1.97	2.66
20	31. After Therapy	1.77	2.65
21	22. After Therapy	2.03	2.23
22	24. After Supervision	2.00	1.99
23	27. After Supervision	2.03	1.97
24	14. After Supervision	1.81	1.85
25	21. Before Therapy	2.00	1.76
26	32. Before Supervision	1.97	1.62
27	16. After Therapy	1.71	1.58
28	25. Before Therapy N.S.	1.90	1.45
29	9. Before Therapy	1.68	1.35
30	15. Before Therapy	1.81	1.16
31	13. Before Supervision	1.81	1.15
32	19. Before Supervision	1.77	1.07
33	17. Before Therapy	1.74	1.01
<u>M</u>		1.85	3.03

Note. Mean = mean of occasion over 31 items. Percentage of variance = percentage of total variance accounted for by each occasion.

Appendix F

THERAPIST PAY--ADDITIONAL DATA

Table 58

Fay: Calibration Scores

Statements								
Category				Personal				
Item	A	B	C	Item	A	B	C	
1.	2	4	7	21.	2	6	7	
2.	2	4	8	22.	3	4	7	
3.	2	4	8	23.	2	4	8	
4.	2	4	8	24.	2	6	7	
5.	2	4	7	25.	2	7	8	
6.	3	4*	7	26.	2	4	8	
7.	2	4	8	27.	2	4	8	
8.	2	4	8	28.	2	6	7	
9.	2	4	8	29.	2	6	8	
10.	2	4	8	30.	2	4	7	
11.	3	4	7					
12.	3	4	6					
13.	3	4	8					
14.	2	4	8					
15.	2	4	7					
16.	3	4	7					
17.	2	4	7					
18.	3	4	8					
19.	2	4	8					
20.	2	4	8					
<u>M</u>	2.3	4.0	7.6		2.1	5.1	7.5	

Note. Category items were those elicited from the supervisor. Personal items were those elicited from Fay. Three statements were developed per item. A = goal, B = improvement, C = problem statement. The statements were calibrated on a 9-point scale of therapeutic skill ranging from very great facility (1) to very great difficulty (9). The intent was that the goal statements be rated near the top of the scale (1), the improvement statements around the midpoint (5), and the problem statements near the bottom (9). Ideally, the scores for each statement would be separated by 2 scale points. In practice, it was accepted if the scores for each statement were separated by 1 scale point.

* indicates a recalibrated score.

Table 59

Fay: Personal PQ Items

21. I am not frustrated with this client.
22. I don't feel responsible for what happens to this client.
23. I am able to keep appropriate eye contact with her.
24. I do not close off the flow of our interactions prematurely.
25. I do not take on her slow monotonous style.
26. I apply her constructs as they come up.
27. I use open-ended questions.
28. I do not rephrase my questions unnecessarily.
29. I have no difficulty formulating questions.
30. I understand her idea of fate.

Table 60

Fay: Occasions of PQ Administration

- | | |
|-------------------------|------------------------|
| 1. Before Supervision | 18. After Supervision |
| 2. After Supervision | 19. Before Therapy |
| 3. Before Therapy | 20. After Therapy |
| 4. After Therapy | 21. Before Therapy |
| 5. Before Supervision | 22. After Therapy |
| 6. After Supervision | 23. Before Therapy |
| 7. Before Therapy N.S. | 24. After Therapy |
| 8. Before Therapy | 25. Before Therapy |
| 9. After Therapy | 26. After Therapy |
| 10. Before Supervision | 27. Before Supervision |
| 11. After Supervision | 28. After Supervision |
| 12. Before Supervision | 29. Before Therapy |
| 13. After Supervision | 30. After Therapy |
| 14. Before Therapy N.S. | 31. Before Supervision |
| 15. Before Therapy | 32. After Supervision |
| 16. After Therapy | 33. Before Supervision |
| 17. Before Supervision | 34. After Supervision |

Note. N.S. = client did not show for the therapy session.

Table 62

Pay: Inconsistent Response Patterns

No. of Inconsistencies	Item			Occasion		
1	1	10	23	2	13	22
	4	11	24	4	14	23
	8	12	28	6	16	25
			30	11	20	28
2	15	17	21		29	34

Calculation of Consistency of Responding

Where items have responses on 34 occasions;

$$\chi^2 = \frac{(34 * .5) - \sum i)^2}{34 * .25}$$

Where; 34 = number of occasions
 .50 = expected percentage of inconsistencies under random responding
 $\sum i$ = number of inconsistencies found per item
 .25 = expected variance of inconsistencies under random responding

For items with 2 inconsistencies;

$$\chi^2 = 26.47, \text{ with 1 d.f., } p < .001$$

For items with 1 inconsistency;

$$\chi^2 = 30.12, \text{ with 1 d.f., } p < .001$$

Therefore 1 or 2 inconsistencies per item with responses on 34 occasions is significantly less than would be expected on the basis of completely random responding.

Table 63

Pay: Items Ranked By Variance

Rank	Item	Mean	Variance	Percentage
1	24. no close flow of interactions soon	2.47	28.47	8.77
2	15. responses to C flow easily natural	2.44	26.38	8.12
3	12. C cooperative with strategies	2.68	25.44	7.83
4	5. overall plan for therapy	2.62	20.03	6.17
5	10. close to knowing client	2.65	19.76	6.09
6	28. no rephrase questns unnecessarily	3.03	18.97	5.84
7	6. control over therapy process	2.18	18.94	5.83
8	25. no take on C's slow monotonous sty	2.94	17.88	5.51
9	21. not frustrated with client	3.47	16.47	5.07
10	13. see expected changes in client	2.18	12.94	3.99
11	19. formulate action from systems	2.09	12.74	3.92
12	23. appropriate eye contact with C	2.76	12.12	3.73
13	29. no difficulty formulating questns	3.03	8.97	2.76
14	27. use open-ended questions	2.15	8.26	2.55
15	20. integrate ther, interp, sys, actns	1.76	8.12	2.50
16	17. find ther e.g's to illustrate sys	1.38	8.03	2.47
17	11. specific strategies to direct flow	1.94	7.88	2.43
18	4. C has potential for change	1.79	7.56	2.33
19	30. understand C's idea of fate	3.74	6.62	2.04
20	18. interpret therapy by systems prins	1.85	6.26	1.93
21	8. see from C's viewpoint	2.21	5.56	1.71
22	2. conceptualize C's prob mult persps	2.03	4.97	1.53
23	3. can help C with problem	1.82	4.94	1.52
24	7. know what C expects from T & ther	2.00	4.00	1.23
25	26. apply C's constructs as they come	2.00	4.00	1.23
26	9. identify with client	1.97	2.97	0.91
27	1. comfortable with C's problem	2.09	2.74	0.84
28	14. see order in therapy relationship	1.91	2.74	0.84
29	16. comf & familiar w C's cult/social	1.97	0.97	0.30
30	22. don't feel responsible for client	4.00	0.00	0.00
<u>M</u>		2.37	10.82	3.33

Note. Mean = mean of item over 34 occasions. Variance = the sum of the squared deviations from the item mean. Percentage = the percentage of the total item variance accounted for by each item. C = client, T = therapist.

Table 64

Pay: Occasions Ranked by Variance

Rank	Occasion	Mean	Percentage of Variance
1	34. After Supervision	2.10	6.66
2	2. After Supervision	2.33	6.00
3	16. After Therapy	2.60	5.80
4	4. After Therapy	2.13	5.71
5	30. After Therapy	2.20	4.97
6	3. Before Therapy	2.20	4.90
7	33. Before Supervision	2.17	4.83
8	22. After Therapy	2.23	4.54
9	6. After Supervision	2.03	3.72
10	26. After Therapy	2.03	3.44
11	25. Before Therapy	2.47	3.02
12	32. After Supervision	2.47	2.98
13	7. Before Therapy	2.17	2.90
14	27. Before Supervision	2.47	2.79
15	23. Before Therapy	2.53	2.74
16	14. Before Therapy	2.50	2.68
17	24. After Therapy	2.63	2.55
18	1. Before Supervision	2.10	2.50
19	19. Before Therapy	2.60	2.44
20	28. After Supervision	2.63	2.44
21	12. Before Supervision	2.57	2.26
22	18. After Supervision	2.60	2.25
23	8. Before Therapy	2.23	2.04
24	15. Before Therapy	2.63	1.97
25	5. Before Supervision	2.23	1.92
26	17. Before Supervision	2.50	1.92
27	20. After Therapy	2.40	1.86
28	29. Before Therapy	2.60	1.50
29	10. Before Supervision	2.30	1.34
30	31. Before Supervision	2.43	1.13
31	11. After Supervision	2.23	1.13
32	21. Before Therapy	2.50	1.02
33	13. After Supervision	2.53	1.01
34	9. After Therapy	2.27	0.93
<u>M</u>		2.37	2.94

Note. Mean = mean of occasion over 30 items. Percentage of variance = percentage of total variance accounted for by each occasion.

Appendix G

THERAPIST BOB—ADDITIONAL DATA

Table 65 shows the calibration scores for Bob. It can be seen that in the initial calibration of the category items, there was a low mean discrimination between statements, and many individual items were calibrated flat (e.g. item 9) or in the wrong direction (e.g. item 10). After it was determined that Bob had based his calibration ratings on considerations of possible exceptions and extreme cases when initially calibrating each statement, Subject B calibrated the category statements again under instructions to consider each statement at face value. The final calibration scores in Table 65 show that only 4 of the 90 statements had to be recalibrated. There is adequate average discrimination between statements, and the statements for individual items were calibrated in the expected direction.

Table 65

Bob: Calibration Scores

Calibration										
Initial				Final						
Category							Personal			
Item	A	B	C	A	B	C	Item	A	B	C
1.	4*	5*	2*	2	3	6	21.	3	6	8
2.	1*	3*	4*	1	3	7	22.	2	3	7
3.	3*	3*	1*	2	4*	5*	23.	1	3	7
4.	1*	4*	5*	1	6*	8*	24.	2	3	6
5.	1*	2*	6*	2	3	7	25.	2	3	6
6.	3*	7*	4*	2	6	8	26.	2	3	4
7.	2*	1*	3*	2	4	7	27.	2	3	8
8.	1*	2*	8*	1	4	8	28.	2	3	6
9.	5*	5*	5*	2	4	6	29.	1	4	7
10.	6*	3*	2*	2	3	4	30.	1	3	9
11.	2*	3*	3*	1	3	7				
12.	5*	4*	3*	2	3	6				
13.	4*	3*	3*	1	3	6				
14.	1*	1*	6*	2	4	9				
15.	1*	2*	6*	1	3	6				
16.	5*	5*	3*	2	3	7				
17.	1*	3*	6*	1	4	8				
18.	2*	4*	5*	2	3	8				
19.	1*	1*	8*	2	4	7				
20.	1*	2*	7*	1	3	8				
M	2.5	3.2	4.5	1.6	3.7	6.9		1.8	3.4	6.9

Note. Category items were those elicited from the supervisor. Personal items were those elicited from Bob. Three statements were developed per item. A = goal, E = improvement, C = problem statement. The statements were calibrated on a 9-point scale of therapeutic skill ranging from very great facility (1) to very great difficulty (9). The intent was that the goal statements be rated near the top of the scale (1), the improvement statements around the midpoint (5), and the problem statements near the bottom (9). Ideally, the scores for each statement would be separated by 2 scale points. In practice, it was accepted if the scores for each statement were separated by 1 scale point.

* indicates that the statement was recalibrated.

Table 66

Bob: Personal PQ Items

21. My statements are not abstract.
22. My statements are formulated in action terms.
23. I use my client's language system.
24. I use a variety of short open-ended questions.
25. I focus on one specific experience at a time.
26. I call her attention to our transactions.
27. I pull together the main theme of the session.
28. I slow the pace of our interaction.
29. I can plan for the session and implement it.
30. I have close emotional contact with my client.

Table 67

Bob: Occasions of PQ Administration

1. Before Supervision
2. After Supervision
3. Before Therapy
4. After Therapy
5. Before Supervision
6. After Supervision
7. Before Therapy N.S.
8. Before Supervision
9. After Supervision
10. Before Therapy
11. After Therapy
12. Before Supervision
13. After Supervision
14. Before Supervision
15. After Supervision

Note. N.S. = the client did not show for the therapy session.

Table 68

Bob: Raw PQ Scores

	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
												1	1	1	1	1	1
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5		
I01-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	<u>2</u>	1	
I02-	3	2	2	3	3	3	2	2	2	2	2	1	1	2	1		
I03-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
I04-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	
I05-	1	2	1	3	2	1	1	1	1	1	2	1	1	1	1	1	
I06-	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	
I07-	2	2	1	1	2	2	1	1	1	1	2	2	2	1	1	1	
I08-	1	2	2	2	2	1	1	1	1	2	2	1	1	1	1	1	
I09-	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	
I10-	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	
I11-	3	2	2	2	2	2	1	2	1	1	1	1	1	1	1	2	
I12-	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	
I13-	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	
I14-	2	1	2	2	2	1	1	2	1	1	1	1	1	1	1	2	
I15-	2	3	2	3	3	2	2	2	2	2	1	1	1	1	1	1	
I16-	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	
I17-	1	1	1	3	3	2	1	1	1	1	1	1	1	1	1	1	
I18-	2	2	2	2	2	2	1	2	1	1	1	1	1	1	1	1	
I19-	2	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	
I20-	2	2	2	3	2	2	1	1	1	2	2	2	1	1	1	1	
I21-	3	3	2	2	2	1	1	2	1	2	2	2	1	2	2	2	
I22-	3	2	4	2	2	2	2	3	2	2	1	2	1	3	3	3	
I23-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
I24-	3	2	3	2	2	2	3	3	2	3	1	2	2	2	2	2	
I25-	2	3	2	1	2	1	1	2	1	2	1	1	1	1	1	1	
I26-	4	4	4	1	1	2	3	2	2	2	3	3	3	3	2	2	
I27-	1	1	2	2	2	3	1	2	1	1	2	1	1	2	1	1	
I28-	2	2	2	3	2	2	2	2	2	2	1	1	1	1	1	1	
I29-	2	2	2	1	1	1	1	1	1	1	1	2	1	1	1	1	
I30-	3	2	2	4	3	3	2	2	2	2	1	1	1	2	1	1	

Note. 0 = occasion, I = item. An underlined score indicates an inconsistent response pattern.

Bob had a total of 450 response patterns, of which 3 (0.7%) were inconsistent.

Table 69

Bob: Inconsistent Response Patterns

No. of Inconsistencies	Item	Occasion
1	1	14
	21	13
	27	9

Calculation of Consistency of Responding

For items with 1 inconsistency each over 15 occasions;

$$\chi^2 = \frac{(15 * .5) - 1)^2}{15 * .25} = 11.27, \text{ with 1 d.f., } p < .001$$

Where; 15 = number of occasions
 .50 = expected percentage of inconsistencies under random responding
 1 = number of inconsistencies found per item
 .25 = expected variance of inconsistencies under random responding

Therefore 1 inconsistency per item with responses on 15 occasions is significantly less than would be expected on the basis of completely random responding.

Table 70

Bob: Items Ranked By Variance

Rank	Item	Mean	Vari- ance	Per- centage
1	26. call C's attention to our transactns	2.6	13.60	10.28
2	30. have close emotional contact with C	2.0	10.93	8.27
3	22. statements formulatd in action terms	2.2	8.93	6.75
4	15. responses to C flow easily natural	1.8	7.73	5.85
5	17. find ther e.g's to illustrate sys	1.3	7.33	5.54
6	2. conceptualize C's prob mult persps	2.0	6.93	5.24
7	27. pull together main theme of session	1.5	5.73	4.33
8	25. focus on one specific experience	1.4	5.73	4.33
9	21. my statements are not abstract	1.8	5.73	4.33
10	11. specific strategies to direct flow	1.6	5.60	4.23
11	20. integrate ther, interp, sys, actns	1.6	5.33	4.03
12	5. overall plan for therapy	1.3	5.33	4.03
13	28. I slow the pace of our interaction	1.7	4.93	3.73
14	24. use variety short open-ended questns	2.2	4.93	3.73
15	7. know what C expects from T & ther	1.4	3.73	2.82
16	18. interpret therapy by systems prins	1.4	3.73	2.82
17	19. formulate action from systems	1.4	3.73	2.82
18	8. see from C's viewpoint	1.4	3.60	2.72
19	14. see order in therapy relationship	1.4	3.60	2.72
20	29. can plan for session & implement it	1.2	2.93	2.22
21	12. C cooperative with strategies	1.2	2.40	1.81
22	13. see expected changes in client	1.2	2.40	1.81
23	10. close to knowing client	1.1	1.73	1.31
24	3. can help C with problem	1.0	0.93	0.71
25	1. comfortable with C's problem	1.0	0.93	0.71
26	4. C has potential for change	1.0	0.93	0.71
27	6. control over therapy process	1.0	0.93	0.71
28	16. comf & familiar w C's cult/social	1.0	0.93	0.71
29	9. identify with client	1.0	0.93	0.71
30	23. I use my client's language system	2.0	0.00	0.00
<u>M</u>		1.54	4.41	3.33

Note. Mean = mean of item over 15 occasions. Variance = the sum of the squared deviations from the item mean. Percentage = the percentage of the total item variance accounted for by each item. C = client, T = therapist.

Table 71

Bob: Occasions Ranked by Variance

Rank	Occasion	Mean	Percentage of Variance
1	4. After Therapy	1.90	14.47
2	5. Before Supervision	1.87	13.21
3	14. Before Supervision	1.40	9.56
4	1. Before Supervision	1.90	8.85
5	2. After Supervision	1.80	7.89
6	15. After Supervision	1.30	7.44
7	3. Before Therapy	1.80	5.86
8	11. After Therapy	1.33	5.26
9	13. After Supervision	1.16	5.04
10	6. After Supervision	1.60	4.69
11	8. Before Supervision	1.60	4.57
12	12. Before Supervision	1.30	4.33
13	7. Before Therapy N.S.	1.37	3.20
14	9. After Supervision	1.27	2.86
15	10. Before Therapy	1.43	2.76
<u>M</u>		1.54	6.67

Note. Mean = mean of occasion over 30 items. Percentage of variance = percentage of total variance accounted for by each occasion.

Appendix H
THERAPIST CAL—ADDITIONAL DATA

Table 72

Cal: Calibration Scores

Statements							
Category				Personal			
Item	A	B	C	Item	A	B	C
1.	2	6	8	21.	2	4	7
2.	2	3*	6	22.	3	4	8
3.	3	6	8	23.	3	6*	8
4.	3	4	8	24.	3	4	6
5.	2	4	7	25.	2	4	7
6.	3	4*	6	26.	2	4	6
7.	3	6	8	27.	3	4	7
8.	2	4	7	28.	2	4	6
9.	3*	4*	6*	29.	2	4	6
10.	3*	4	7	30.	2	4	7
11.	2	4	5*				
12.	3*	4	5				
13.	2	4	6				
14.	2	4	8				
15.	2	3*	7*				
16.	3*	4	7				
17.	3	6	8				
18.	2*	3	7				
19.	2	3	7				
20.	2	4	7				
<u>M</u>	2.5	4.2	6.9		2.4	4.2	6.8

Note. Category items were those elicited from the supervisor. Personal items were those elicited from Cal. Three statements were developed per item. A = goal, E = improvement, C = problem statement. The statements were calibrated on a 9-point scale of therapeutic skill ranging from very great facility (1) to very great difficulty (9). The intent was that the goal statements be rated near the top of the scale (1), the improvement statements around the midpoint (5), and the problem statements near the bottom (9). Ideally, the scores for each statement would be separated by 2 scale points. In practice, it was accepted if the scores for each statement were separated by 1 scale point.

* indicates a recalibrated score.

Table 73

Cal: Personal PQ Items

21. I am cautious to get him to define his labels.
22. I am careful not to give him advice.
23. I respect his value judgements.
24. I am aware of what cues I give him.
25. I allow him time to sort out his thoughts in the session.
26. I make interpretations appropriately.
27. I draw connections between things overtly.
28. I look for feedback to ensure that he understands.
29. I often draw analogies.
30. I monitor the emotional distance between us.

Table 74

Cal: Occasions of PQ Administration

- | | |
|------------------------|------------------------|
| 1. Before Supervision | 16. After Therapy |
| 2. After Supervision | 17. Before Supervision |
| 3. Before Therapy | 18. Before Therapy |
| 4. After Therapy | 19. After Therapy |
| 5. Before Supervision | 20. Before Supervision |
| 6. After Supervision | 21. After Supervision |
| 7. Before Therapy | 22. Before Therapy |
| 8. After Therapy | 23. After Therapy |
| 9. Before Therapy | 24. Before Supervision |
| 10. After Therapy | 25. After Supervision |
| 11. Before Supervision | 26. Before Therapy |
| 12. After Supervision | 27. After Therapy |
| 13. Before Supervision | 28. Before Therapy |
| 14. After Supervision | 29. After Therapy |
| 15. Before Therapy | |

Note. The PQ was missed once after a supervision session because the session was cancelled.

Cal: Raw PQ Scores

Note. O = occasion, I = item. An underlined score indicates an inconsistent response pattern.
Cal had a total of 870 response patterns of which 44 were inconsistent.

Cal had a total of 870 response patterns of which 44 were inconsistent.

Inconsistent Response Patterns

For Cal, 5.1% of the total response patterns were inconsistent. Phillips (1976) stated that in such a case, (a) "it must be decided whether the data give evidence of sufficient consistency to warrant further consideration", and (b) "some method must be found of estimating the consistent patterns which lie hidden behind the error" (p. 225). Cal's inconsistent response patterns are broken down several ways in Table 76. Table 76 shows that less than half of the items and less than one-quarter of the occasions were free of inconsistent response patterns.

The majority of the inconsistencies occurred in the personal items and far fewer in the category items. More than 1 out of every 10 responses to personal items are inconsistent (5 out of 10 would constitute completely random responding). It appears that Cal did not respond as meaningfully to the personal items which he himself generated as to the category items generated by the supervisor.

Table 76 also shows the inconsistent response patterns broken down by score. The percentage of inconsistencies is lower for the response patterns scored 1 (goal - most positive score), which constituted almost 80% of the total response patterns. Those response patterns with higher (more negative) scores had much higher percentages of inconsistencies and are therefore more unreliable.

Table 76

Cal: Patterns of Inconsistent Responses

No. of Inconsist- encies	Items						Occasions	
	Personal		Category		Total			
	No.	%	No.	%	No.	%	No.	%
0	2	20	12	60	14	47	7	24
1	3	30	5	25	8	27	8	28
2	1	10	1	5	2	7	9	31
3	0	-	1	5	1	3	2	7
4	0	-	1	5	1	3	3	10
5	2	20	0	-	2	7		
6	0	-	0	-	0	-		
7	1	10	0	-	1	3		
8	1	10	0	-	1	3		
Total	10	100	20	100	30	100	29	100

Inconsistent Responses

	No.	%	Total Responses
Type of Item			
Personal	30	10.3	290
Category	14	2.4	580
Total	44	5.1	870

Score	No.	%	No.	%	Total	%
1 (goal)			21	3.1	680	78.2
2	12	7.9 >			152 >	
3	10	31.3 >	23	12.1	32 >	21.8
4 (problem)	1	16.7 >			6 >	
Total			44	5.1	870	100.0

Cal's data are most unreliable for (a) certain items with many inconsistencies, (b) personal items, and (c) response patterns with scores higher than 1. If the most unreliable data were disregarded, the consistent pattern behind the errors is mainly category items with unvarying positive scores (scores of 1).

Table 77 shows that one item (27 - I draw connections between things overtly) had 9 inconsistencies, which is not significantly different from random responding at the .01 level.

Table 77

Cal: Calculation of Consistency of Responding

Where items have responses on 29 occasions;

$$\chi^2 = \frac{(29 * .5) - \sum i)^2}{29 * .25}$$

Where; 29 = number of occasions
 .50 = expected percentage of inconsistencies under random responding
 $\sum i$ = number of inconsistencies found per item
 .25 = expected variance of inconsistencies under random responding

For items with 8 inconsistencies (item 27);

$$\chi^2 = 5.83, \text{ with 1 d.f., } p < .02$$

For items with 7 inconsistencies (item 26);

$$\chi^2 = 7.76, \text{ with 1 d.f., } p < .01$$

For items with 5 inconsistencies (items 22 & 29);

$$\chi^2 = 12.45, \text{ with 1 d.f., } p < .001$$

For items with 4 inconsistencies (item 15);

$$\chi^2 = 15.21, \text{ with 1 d.f., } p < .001$$

For items with 3 inconsistencies (item 17);

$$\chi^2 = 18.24, \text{ with 1 d.f., } p < .001$$

For items with 2 inconsistencies (items 10 & 28);

$$\chi^2 = 21.55, \text{ with 1 d.f., } p < .001$$

For items with 1 inconsistency (items 2, 3, 12, 14, 16, 21, 23 & 30);

$$\chi^2 = 25.14, \text{ with 1 d.f., } p < .001$$

Table 78

Cal: Items Ranked by Variance

Rank	Item	Mean	Variance	Percentage
1	27. I draw connectns btwn thgs overtly	1.55	21.17	13.12
2	22. I am careful not to give C advice	2.69	20.21	12.52
3	26. I make interpretatns appropriately	1.62	14.83	9.19
4	29. I often draw analogies	2.14	13.45	8.33
5	28. look for fdbk ensure C understands	1.34	10.55	6.54
6	30. I monitor emotional dist btwn us	1.62	8.83	5.47
7	25. allow C time to sort thots in sess	1.41	7.03	4.36
8	21. cautious to get C to define labels	1.34	6.55	4.06
9	6. control over therapy process	1.24	5.31	3.29
10	7. know what C expects from T & ther	1.21	4.76	2.95
11	2. conceptualize C's prob mult persps	1.17	4.14	2.56
12	4. C has potential for change	1.17	4.14	2.56
13	16. comf & familiar w C's cult/social	1.17	4.14	2.56
14	24. I am aware of what cues I give C	1.17	4.14	2.56
15	5. overall plan for therapy	1.14	3.45	2.14
16	8. see from C's viewpoint	1.14	3.45	2.14
17	18. interpret therapy by systems prins	1.14	3.45	2.14
18	11. specific strategies to direct flow	1.10	2.69	1.67
19	17. find ther e.g's to illustrate sys	1.10	2.69	1.67
20	20. integrate ther, interp, sys, actns	1.10	2.69	1.67
21	12. C cooperative with strategies	1.10	2.69	1.67
22	19. formulate action from systems	1.10	2.69	1.67
23	9. identify with client	1.10	2.69	1.67
24	15. responses to C flow easily natural	1.07	1.86	1.15
25	10. close to knowing client	1.07	1.86	1.15
26	13. see expected changes in client	1.03	0.97	0.60
27	1. comfortable with C's problem	1.03	0.97	0.60
28	3. can help C with problem	1.00	0.00	0.00
29	14. see order in therapy relationship	1.00	0.00	0.00
30	23. I respect his value judgements	1.00	0.00	0.00
<u>M</u>		1.27	5.38	3.33

Note. Mean = mean of scores for each item over 29 occasions. Variance = the sum of the squared deviations from the item mean. Percentage = the percentage of the total item variance accounted for by each item. C = client, T = therapist.

Table 79

Cal: Occasions of PO Administration Ranked by Variance

Rank	Occasion	Mean	Percentage of Variance
1	23. After Therapy	1.40	8.03
2	22. Before Therapy	1.43	7.12
3	12. After Supervision	1.40	6.95
4	24. Before Supervision	1.31	6.35
5	18. Before Therapy	1.47	6.32
6	26. Before Therapy	1.43	4.68
7	19. After Therapy	1.43	4.17
8	9. Before Therapy	1.23	4.07
9	5. Before Supervision	1.27	3.78
10	29. After Therapy	1.37	3.59
11	2. After Supervision	1.27	3.44
12	13. Before Supervision	1.30	3.40
13	21. After Supervision	1.27	3.19
14	15. Before Therapy	1.33	3.14
15	25. After Supervision	1.20	2.81
16	27. After Therapy	1.27	2.78
17	20. Before Supervision	1.17	2.76
18	6. After Supervision	1.23	2.73
19	16. After Therapy	1.20	2.64
20	10. After Therapy	1.23	2.51
21	8. After Therapy	1.10	2.38
22	11. Before Supervision	1.17	2.19
23	28. Before Therapy	1.20	2.16
24	4. After Therapy	1.20	2.02
25	7. Before Therapy	1.27	1.98
26	1. Before Supervision	1.13	1.59
27	17. Before Supervision	1.10	1.30
28	3. Before Therapy	1.20	1.10
29	14. After Supervision	1.20	0.82
<u>M</u>		1.27	3.45

Note. Mean = mean of scores for 30 items on each occasion.
 Percentage of variance = percentage of total variance accounted for by each occasion.

Appendix I

THERAPIST ANY--ADDITIONAL DATA

Table 80

Amy: Calibration Scores

Category Statements

Item	Improve-		
	Goal A	ment B	Problem C
1.	4	4	6
2.	4	6	4
3.	4	4	6
4.	3	4	5
5.	7	7	6
6.	6	6	6
7.	5	7	6
8.	3	3	6
9.	5	5	7
10.	7	6	6
11.	6	7	5
12.	4	4	7
13.	5	5	5
14.	4	4	6
15.	8	7	7
16.	3	4	6
17.	4	6	6
18.	4	4	5
19.	6	7	7
20.	4	4	6
M.	4.8	5.2	5.9

Note. Category items were those elicited from the supervisor. Three statements were developed per item. A = goal, B = improvement, C = problem statement. The statements were calibrated on a 9-point scale of therapeutic skill ranging from very great facility (1) to very great difficulty (9). The intent was that the goal statements be rated near the top of the scale (1), the improvement statements around the midpoint (5), and the problem statements near the bottom (9). Ideally, the scores for each statement would be separated by 2 scale points.

Here it can be seen that Amy rated all statements near the midpoint of the scale, indicating very low discrimination between the levels of therapeutic skill represented by each of the statements.

Amy did not develop or calibrate personal items, nor recalibrate the category items.

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